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ABSTRACT

Student perspectives on learning was investigated at Alverno College. Attention was directed to how students understand and justify learning outcomes, and how they understand liberal learning as relevant to performance in personal and professional roles. The competency-based curriculum at Alverno College defines competencies as developmental, generic, and holistic. Interviews with 13 traditional-age students at the end of their junior year were supported by 100 interviews with 37 women students interviewed at the end of each college year. Two patterns consistent with curricular emphasis and student orientation appeared: students expressed a career-centered rationale for college education and they emphasized the value of learning how to perform. This link between learning and performing allows for the transfer of learning to multiple situations and contexts, and establishes students' confidence in their abilities to perform after college. Information is provided on student constructions of competence; understanding competence as categories, skills, and processes; understanding competence as theory of action; and understanding competences as theory for performing in relation to context. Interview questions are appended. (SW)

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**STUDENT PERSPECTIVES ON LIBERAL LEARNING
AT ALVERNO COLLEGE:
JUSTIFYING LEARNING AS RELEVANT TO
PERFORMANCE IN PERSONAL AND PROFESSIONAL ROLES**

Nancy Much Marcia Mentkowski

**Office of Research & Evaluation
ALVERNO COLLEGE**

**FINAL REPORT TO THE NATIONAL INSTITUTE OF EDUCATION:
RESEARCH REPORT NUMBER SEVEN**

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An overview and rationale for our approach to the study of college outcomes, and a summary of the results from the following series of ten research reports, are found in:

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Research Reports:

- One: Friedman, M., Mentkowski, M., Earley, M., Loacker, G., & Diez, M. *Validating Assessment Techniques in an Outcome-Centered Liberal Arts Curriculum: Valuing and Communications Generic Instrument, 1980.*
- Two: Friedman, M., Mentkowski, M., Deutsch, B., Shovar, M.N., & Allen, Z. *Validating Assessment Techniques in an Outcome-Centered Liberal Arts Curriculum: Social Interaction Generic Instrument, 1982.*
- Three: Assessment Committee/Office of Research and Evaluation. *Validating Assessment Techniques in an Outcome-Centered Liberal Arts Curriculum: Insights From the Evaluation and Revision Process, 1980.*
- Four: Assessment Committee/Office of Research and Evaluation. *Validating Assessment Techniques in an Outcome-Centered Liberal Arts Curriculum: Integrated Competence Seminar, 1982.*
- Five: Assessment Committee/Office of Research and Evaluation. *Validating Assessment Techniques in an Outcome-Centered Liberal Arts Curriculum: Six Performance Characteristics Rating, 1983.*
- Six: Mentkowski, M., & Strait, M. *A Longitudinal Study of Student Change in Cognitive Development and Generic Abilities in an Outcome-Centered Liberal Arts Curriculum, 1983.*
- Seven: Much, N., & Mentkowski, M. *Student Perspectives on Liberal Learning at Alverno College: Justifying Learning as Relevant to Performance in Personal and Professional Roles, 1982.*
- Eight: Mentkowski, M., Much, N., & Giencke-Holl, L. *Careering After College: Perspectives on Lifelong Learning and Career Development, 1983.*
- Nine: Mentkowski, M., DeBack, V., Bishop, J., Allen, Z., & Blanton, B. *Developing a Professional Competence Model for Nursing Education, 1980.*
- Ten: Mentkowski, M., O'Brien, K., Eachus, W., & Fowler, D. *Developing a Professional Competence Model for Management Education, 1982.*

ABSTRACT

Approaches to the study of student outcomes at Alverno include measuring performance in the curriculum and student changes on measures indicative of human potential for cognitive development, learning styles and generic abilities (Mentkowski & Straft, 1983). This study explores student perspectives on learning as another valuable data source for validating abilities learned in college (Mentkowski & Doherty, 1983). How do students understand and justify learning outcomes? How do they understand liberal learning as relevant to performance in personal and professional roles? Detailed analysis of interviews from 13 traditional age students at the end of their junior year were supported by systematic reading of 100 interviews from 37 women students interviewed longitudinally at the end of each college year. A qualitative methodology was selected that recognizes the subjective nature of the data and treats this as a valuable source. Systematic procedures were devised for construction of content patterns representing student perspectives on how they understand and justify learning and give meaning to day to day learning experiences.

Two outstanding patterns consistent with curricular emphasis and student orientation appear. First, students express a career centered rationale for college education. Learning is justified primarily in terms of its relevance to practicing a particular career after college. Second is a heavy emphasis on learning "how-to-do" things; learning is or ought to be useful. Students regard the learning process as concerned with teaching them how to perform and apply what they know. The meaningfulness of day to day learning experiences is predicated upon perceived relevance of these experiences to professional performance. While students express dissatisfaction with learning experiences for which they cannot find career relevance, they succeed in developing a justificatory rationale for assimilating all kinds of learning including "wellroundedness," a variety of discipline content areas and the competences, to the idea of professional role performance. For these students, the competences are central to the structuring of learning to perform; "use" or "application" of learning refers to the competences. Other kinds of substantive knowledge, observations, ideas, concepts, theories and so on, are assimilated to the competences which structure learning to perform, and are linked to role performance. Competences offer ways of looking at things, ways of understanding, ways to be aware of what is important. Students experience the competences as meaningful and useful and anticipate their application to the work setting. For competences Communications and Social Interaction, for example, students report feelings of increased mastery, control and certainty in three areas that students regard as important and which are often problematic for young women: interpersonal relations, identity and personal choice. The competences support student's perceptions of being more in control and more effective in common everyday social and work settings, including those encountered in off-campus experiential learning settings and personal life. Through experiential validation of the competences, students are able to construct a justification for liberal learning in which personal growth and effectiveness mediate between educational experience and concepts of professional role performance.

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STUDENT PERSPECTIVES ON LIBERAL LEARNING
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Office of Research & Evaluation
ALVERNO COLLEGE

INTRODUCTION

Introducing new constructs about liberal learning in higher education curricula is expected to have benefits for students. Any attempt at validating such constructs needs to consider how students understand and make meaning about learning and its outcomes.¹ While there may be numerous criticisms about ~~any~~ existing educational curriculum, replacing old concepts about learning and its outcomes with new ones is no guarantee that students will begin to understand learning differently. Without such understanding, we cannot expect that ~~be~~ ~~s~~ will last and colleg that learning in college will transfer to personal and professional roles afterwards.

A major question in this study is "How do students understand and justify learning?" The question is one researched as part of a large study designed to establish the validity of college outcomes (Mentkowski & Doherty, 1977; 1983). The Alverno faculty created a curriculum centered around identifying, defining and assessing the outcomes of liberal learning. They

¹"Learning" and "learning outcomes" can often be used simultaneously. Learning generally refers to a process. ~~one~~ outcomes at Alverno include process and since the major outcome is growth, "outcome" is thought of as a process, rather than a static ability. The term "outcome" conveys that one can observe and measure performance from which, realizing an outcome can be inferred.

are now interested to know the extent to which these structures for learning are understood by students. Constructs about learning and learning outcomes described in the faculty's Liberal Learning at Alverno College have been implemented. Why do students think they should learn?

A college can have more confidence in the validity of its curriculum if it can demonstrate that changes occur in student perspectives on learning. In a student-centered educational institution, understanding student perspectives on learning is essential to curriculum development. Given student concern that higher education demonstrate the relationship of education to work², focusing on student perspectives is important to assessing how well students perceive college as meeting their own needs. At the same time, faculty are asking questions about the extent to which traditional liberal arts outcomes such as critical thinking and personal growth can survive students' current concern for stone to career.

This paper describes the process by which liberal learning at Alverno becomes assimilated into students' rationale for learning. This report describes student perspectives. Because of the nature of the methodology, and because we are aware of the dialectic between the person and educational experiences, we hesitate to identify causes for student constructions. While the analysis is primarily descriptive, our interpretations will refer to goals and objectives, and what we believe to be the more common practices of the learning process. Following this description of student constructions, we will discuss what meaning these constructions have in the context of the learning process as understood by the faculty. The

² See Mentkowski and Doherty, 1983 for a fuller treatment of this issue.

discussion will also clarify the results in relation to the validity of learning outcomes. Finally, we will identify outcomes that we have glimpsed in our analysis of student perspectives, and raise several issues for further analysis of student thinking.

This study of student perspectives on learning will give faculty insight into learning outcomes and benefits understood by students. As such, this study is another way to validate the learning process. Further, it allows us to identify areas of further study that can clarify developmental patterns, allow us to ask ascriptive questions, and ultimately allow faculty to prescribe learning that is more effective in promoting student growth.

The Meaning of Liberal Learning

Colleges and universities are social systems whose reason for being is the pursuit of learning. These institutions have other functions for their participants and for society. Participants may have many kinds of reasons for their involvement. Learning, particularly curricular learning, does not always define a student's purpose for being in college, but it does constitute the conditions of his or her participation. Persons who enroll as students in institutions of higher learning allocate much of their time and attention to various ways of learning in the curriculum, whether this is primary, instrumental or incidental to their actual purposes or reasons for being in school. Along the way, college students typically realize learning outcomes they were unaware of when they enrolled, or that are more incidental to curricular learning. Some of these outcomes are accounted for among the stated purposes of undergraduate institutions (e.g. imparting a "compelling awareness" of the obligations

higher education imposes, (Alverno College Faculty, 1976), and some are much less explicit (e.g. learning independence from one's family or finding a life partner). Various kinds of incidental learning may hold a high place in a student's hierarchy of reasons for being in school, and may weigh heavily in accounting for outcomes of higher education.

While we recognize the importance of such learning, the scope of this report is limited to learning students engage in as part of the Alverno learning process. This report examines how Alverno students talk about learning. What do students believe themselves to be learning and how do they explain and justify, not being at Alverno, but those activities they do day to day to fulfill the conditions of their participation in the curriculum?

Curricular learning is traditionally partitioned according to academic disciplines or "fields." Such classifications break down the more complex a student's learning becomes and educators often tacitly hope that students will discover certain relationships among subject matter and methods of various fields which would ultimately yield broad outcomes. Nevertheless, learning by "subject" is highly consistent with the way traditional higher education structures its resources for distribution. Students are oriented in the selective allocation of their resources, by this structure. Within the study of any given field, it is possible to distinguish several kinds of learning. We speak of facts and observations, and of concepts, theories and frameworks for organizing them. We also speak of methods, processes, skills and abilities for practicing a field as a discipline or profession.

The Alverno curriculum departs from the traditional structure of learning by field alone. On the one hand, Alverno's curriculum structures

learning according to the academic disciplines and professions in the usual way. On the other hand, the competences present an array of frameworks for performing, mastery of which are required for an Alverno degree. The competences structure learning according to how it is used. Each competence is understood as interrelated with the others, and as derived from and integral to the academic disciplines and professions whose practice creates the contexts for performance. The competences are:

- Communications
- Analysis
- Problem Solving
- Valuing
- Social Interaction
- Taking Responsibility for the Environment
- Involvement in the Contemporary World
- Aesthetic Response

Each competence is defined through a set of six pedagogical levels. What the competences have in common is that they constitute frameworks for processing information, models for thinking about, models for understanding, each with corollary criteria for performance. Competences are defined as developmental, generic and holistic (Alverno College Faculty, 1979), because the college takes on the responsibility for contributing to the development of lifelong learners, and for being a catalyst for learning in college that continues afterwards.

For a competence to be developmental means that the outcome is descriptive of an ability that can be taught. Thus, a competence can be broken open into sequential pedagogical levels that describe increasingly complex elements and/or processes which are acquired by students over time and where each level requires a more complex demonstration of the competence. Further, competences that are developmental continue to develop after college, as additional learning experiences contribute toward greater complexity.

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For a competence to be holistic means that each developing competence involves the whole person, although complex competences include a skill or behavioral component, a knowledge component, a self-perception component, and a motivation or disposition component.

All or some of the elements of the competence can be inferred from observable performance. Traditionally, colleges have required demonstration of only the knowledge component of competences. When outcomes are defined holistically, knowledge, skill, attitudes, self-perception and disposition components are specified. When a competence is performed in a particular context, it is defined in observable behaviors. The emphasis is on learning how to perform as well as on what to learn. Identifying outcomes as holistic means that multiple components of a competence will be identified. These competences are expected to become integrated with others and internalized. Competences thus become characteristics of the person.

For a competence to be generic means that the developing, holistic ability transfers across situations and settings. The kinds of situations to which competences are expected to transfer include those a student encounters in exercising multiple roles. The concept of competence implies effective performance across situations in relation to contexts. Generic competences are expected to transfer not only to situations in college and work, but also to personal and professional roles after college. Outcomes of college therefore include growth in student perceptions of the self as a learner. In addition to her performance, student perceptions are equally valuable outcomes of college.

The competences are learned in relation to the substantive knowledge, methods, processes, skills and abilities of the fields or disciplines,

since they are taught in the context of traditional academic courses, and since the competences were identified and defined out of the academic disciplines. Each discipline gives greater emphasis to certain competences which are believed to be more central to the practice of a discipline.

Students are required to demonstrate levels 1 to 4 of all eight competences, and each field specifies which competences students demonstrate to levels 5 or 6. But the competences are expected to be generic to a degree across situations and contexts, including the disciplines.

Further, there is a heavy emphasis on conceptualization, learning as a process that is experiential (Gibbs, Brookover, and Conrad, 1976). Experiential learning emphasizes learning that not only involves the person in observation, reflection and abstract conceptualization or theorizing traditional to the liberal arts. Experiential learning builds on involvement and performing. Students are involved in concretely experiencing what is to be learned, and in testing out one's constructs and theories in action (Gibbs, 1981; Argyris & Schon, 1978). One's observations, abstract theories and frameworks are linked to a theory of action which guides practical action. Action is not only reflective and context sensitive, but also a means of learning. Learning becomes a long process.

METHOD

Sample

A total of 82 students randomly selected from the 1976 and 1977 entrance cohorts and 37 students randomly selected from the 1978 graduating seniors comprise the full sample of Alverno students participating in the study of student and alumna perspectives on liberal learning. Students from the 1976 and 1977 entrance cohorts participated in the interview toward the end of each year in college over a period of four years. Since there was some attrition during those four years from the interview sample, a small number of students were added toward the end of the second year to keep the sample size at the same number. From the 1976 entrance cohort, 21 students were originally interviewed. There was some attrition during the second year, and students were added. This group then continued throughout the remaining two years. From the 1977 entrance cohort, 61 were interviewed the first year. There was some attrition the second year (two students) and the third (one student) but students added the second year kept the sample to 61. Consequently, however, while the sample is comprised of 82 students interviewed over four years, the number of students with a complete set of four interviews is somewhat less than 82. The participation rate, not counting loss due to attrition, was 99%.

Thirty-seven students were interviewed from the 1978 graduating senior group and 32 of these women participated in a followup interview two years after graduation (Cientkowski, Much & Grendle Hall, 1983).

The current report is a study of 52 traditional aged students from the 1976 and 1977 entrance cohorts, although the actual number of interviews submitted to extensive analysis compared to those read is detailed below.

The following analysis was conducted on a sample of 13 third year interviews of 13 Alverno students from the 1976 entrance cohort. Longitudinal interviews with these same students from the 1976 entrance cohort, including interviews for four consecutive years of college education, were used to discuss questions regarding the development of patterns identified on the basis of third interview texts. The third interview was selected as the focal point for analysis because a preliminary reading of 100 texts including all four interviews conducted at the end of each year in college seemed to indicate that the third interview, usually occurring at the end of the Junior year, was the year of most intense involvement with the educational system. For most students, this is the year in which concentrated specialization in the major area begins. Students interviewed for the fourth time in the second semester near the end of their college experience, often appeared to talk more about the future than past and present educational experiences. They seemed to have begun to disengage their attention from the education to the work environment.

The texts for analysis are from the 1976 entrance cohort, because at the time of this analysis, a full four year longitudinal sample was available. The sample of 13 individuals is the full sample of 1976 entrance cohort participants, after attrition, for whom texts for all four longitudinal interviews existed. While the analysis was conducted systematically on this sample of 13 individuals, 100 interviews representing 37 traditional aged students at various years in college from both the 1976 and 1977 cohort had been read at least once through, prior to beginning this analysis, including 25 texts in all from the third interview. No

absolute claim can be made, of course, that the analysis conducted on the sample of 13 is the same as what might have been derived from the larger group although a check on the representativeness of the sample indicated the 13 were representative of the 1976 entrance cohort.

On the basis of the readings of these 25 texts, however, it does appear that the present analysis would prove to be an essentially accurate representation of patterns in the larger group as well.

Alverno students in the sample generally enrolled in areas of concentration (majors) that prepare them for specific careers or professions. By and large this pattern is typical of the majority of full time, traditional aged students who are not continuing education admissions (although a number of exceptions occur). This sample includes eight Nursing majors, two Education majors, one Music Education major, a Medical Technology major and one student who spent two years as an Education major and then changed her major to Library Science. All but one of these students (the Medical Technology major) entered Alverno to graduate with an area of concentration directly related to a particular career (although one changed programs) two students in the cohort for this sample were preparing for admission to professional schools. Law and Dentistry. In other cohorts some students were not preparing for the more usual careers for women. One such student hoped to become a professional writer (but was enrolled in an Education minor "to fall back on"), another had a career plan combining farming and agricultural journalism. All students interviewed intend to have a "career" after college, and none interviewed seem uncertain whether she will.

While the proportions of majors in this sample can not be said to represent the student population, the career orientation of majors is typical. Over 50% of full time traditional aged students were Nursing majors in 1980. Students classified as Arts and Humanities, Behavioral and Natural Sciences, and Fine Arts majors are characteristically also enrolled in majors or minors related to a particular profession (Education, Music Therapy, Library Science, Management, etc.), to which they intend to apply their academic major (English, Sociology, etc.). About 20% of students classified as Arts and Humanities or Behavioral and Natural Sciences majors were majoring in Management in 1980.

Instrument

The Alverno Student Perspectives Interview (Mentkowski & Much, 1980) used to generate the data is semi-structured with a set of 24 standard items and a set of standard probe inquiries. This is true for all except the first year interviews for this sample, which were completed before the interview was developed in its present form. The essential difference is that the later interview contains more items and that these occur in a specified order. The later interview was developed on the basis of the earlier form. The interview is in the Appendix.

The interview items direct the student to specific topics and relationships that were felt to be important for investigating the student's educational experience. But the items are open-ended and the respondent has considerable leeway to determine the course and emphasis of the interview. The interview strategy was simply to try to elicit the understandings, beliefs, interpretations, etc., that the student felt were relevant to each interview item. The purpose of the interview was to have the student speak for herself about her educational experience. The

interview was administered by trained interviewers. Both authors participated in interviewing, and trained two additional interviewers over the four years of the first wave of the longitudinal study on which these conclusions are based.

Procedure

A sample of traditional aged students from the 1976 entrance cohort were contacted for the first time toward the end of their first year in college by telephone by the Director of Research and Evaluation. She contacted the 1976 cohort initially by letter. Each student was asked to participate in an end of the year interview after it was ascertained that the student intended to return to Alverno the following year.

Students were invited to share their college experiences, and were assured that the interview would be confidential. Students were asked their permission to tape the interview prior to their agreeing to participate.

On occasion during the four years, the interviewer stated additional reasons for interviewing that matched the comments of students. For example, if a student commented that "I can't be of much help to you this year, I'm so down about some part of the program," the interviewer would state how important it is that negative as well as positive student experiences are represented in the study.

All students invited agreed to participate, and all but one student from the 1976 and 1977 entrance cohorts continued to participate throughout the four years of the study except for those who left Alverno.

Toward the end of each succeeding year in college, students were again contacted by a letter describing the rationale for participating, and the

interviewer then scheduled the interviewee by telephone. The interviewer persisted in contacting a student until a time was set convenient to the participant.

Students who had difficulty scheduling a time were sometimes additionally contacted by the Director of Research and Evaluation, who observed that students did intend to participate and perceived themselves to be volunteers. At no time was the identity of an interviewee revealed to persons other than Office of Research and Evaluation research staff.

Each person interviewed was simultaneously involved in the longitudinal study of human potential (see this section), and completed the Human Potential Measures three times during their college career.

At the interview, students were again told the rationale, and assured of confidentiality (cf. Mentkowski & Much, 1980). Interviews ranged from 1 to 2 hours in length. Following the interview, each student was informed she could listen to her current or previous tapes should she wish to do so.

Interviews were transcribed following the interview. Sections of the interview judged relevant for a particular data analysis question were cut and pasted on index cards for ease in analysis.

Data Analysis

Having asked Alverno students to speak for themselves about their educational experience, it is the analyst's task to devise a fruitful way of "listening" to them. Because the texts represent subjective experiences of students, it was decided that the most appropriate manner of treatment would account for material in the texts by attempting to construct student perspectives of her educational environment and her experiences within it. This manner of treatment recognizes the subjectivity

of the material in the texts and treats this subjectivity as valuable, and informative in its own right. It represents educational experiences as they are "real" for the students. The analysis is therefore concerned with interpretations of patterns of meaning that could be inferred from interview texts. It is an attempt to discern patterns according to which students conceptually order their experiences.

Such patterns involve beliefs, interpretations, assumptions, categories, explanations, reasons, justifications, evaluations and the like. One implication, of course, is that the analytic task is the interpretation of other people's interpretations. It is not simply to list student beliefs, assumptions, justifications, etc., but to order them in such a way as to tell more than the students themselves have directly said by making reasonable inferences about what they meant. The analysis is concerned with patterns of meaning in the sense that it concentrates upon the shared understandings that emerge as common themes when students speak about their educational experiences. These commonalities must, of course, be assumed to have their individual exceptions. This analysis, furthermore, systematically excludes information about individual differences, since it was intended to capture what is most commonly shared by students at Alverno, and therefore what most nearly pertains to the educational environment rather than to the possible range of individual responses within that environment. A further and more complete analysis, following interpretation of data from the Human Potential Measures, will include patterns of variation, including those that show developmental change.

An interpretation of patterns of meaning based upon these interview texts could have dealt with countless aspects of student experience. This

report is not by any means comprehensive. An area for investigation was selected which was felt to be of central importance for understanding the student's educational experience and which would produce an understanding of certain broad aspects of Alverno's newly defined constructs about liberal learning and for a reference point against which further areas of analysis might be understood. The present analysis is concerned with the student's understanding of liberal learning in the context of the Alverno learning process, and the ways in which she gives significance to her participation in the curriculum. It is an account of how these students understand their college education in general, and how they understand liberal learning that characterizes Alverno in particular.

As the base for our analysis, the interviews have some advantages as a mode of assessment of student perspectives. First, students are extensively interviewed by research staff who are not involved in teaching and assessment activities, which encourages a more reflective stance and an opportunity to generate a person's perspective. At the same time, we recognize that an interpretive analysis of this kind conducted on the basis of interview texts alone has certain limitations. The data are necessarily incomplete. One wants to know whether what students say to each other at lunch, in the dorm, during and after class, is essentially the same as what they say to interviewers in the Office of Evaluation, the college department carrying out the research. And one wants to know first-hand what are the experiences in the classrooms with reference to which students develop their understandings. And one would like to interview, as well, the educators who are so important in the

construction of students' experiences. Clearly, the experiences students relate can be fully understood only in relation to the context in which they happen, and need to reflect an understanding of this context.

This work then, reflects the interpretations of both authors. One is a part time member of the Office of Evaluation who worked independent of its activities and those of the college; the other is a full time member of the Office and the faculty who has extensive on campus experiences in all aspects of the institution, including curriculum development but not including classroom teaching and assessment.

An analysis of this kind is informative and useful because it places some initial order in the domain of investigation, student experience at Alverno, order that is induced from observations of the domain itself. It thereby contributes to later formulations of more precise questions and methods of investigation.

Again, while the patterns discussed were derived systematically from the texts of 13 of 37 traditional aged students interviewed, the interpretations take into account the background knowledge of the Alverno student experience gained through careful reading of 100 interview texts representing 37 Alverno students at the end of their various years (including 25 additional texts of third year interviews). The interviews that were not included in the actual analysis nevertheless contributed much to an underlying understanding of student perspectives on the educational environment as well as experiences of students within this environment. They also afforded a means of comparing the contents of the selected sample of texts with the contents of other texts so that it could be ascertained that patterns derived in analysis were not likely to be based upon idiosyncratic viewpoints among these 13 students.

Other students said essentially the same kinds of things that these students did about their educational experiences. This does not mean that the patterning would have been exactly the same had a larger sample or another class been used as the basis of analysis. It does, however, give reason to believe that the basis of the patterns discernible among this sample extends well beyond the particular experiences of these 13 students and is part of a more widely shared perspective on educational experience.

In conducting this analysis, interview texts were read and categories of inquiry were developed inductively on the basis of what students had communicated in the interviews. Throughout the shaping of the categories, both authors discussed their characterization in relation to other possible categories and their meaning. The current analysis followed extensive "tryouts" of both categories and methodology by the authors over a period of two years. These categories or areas of inquiry followed the students' structuring of content. The patterns did not adhere to the structure imposed by the interview items, but rather to the structure that emerged in repetitive themes when students spoke about their educational experience. The analysis is not, in other words, an item by item discussion of interview responses. Textual data were sorted according to categories of inquiry to which segments of the text pertained. Textual material for all students pertaining to a given area of inquiry was grouped and analyzed for the patterns of meaning conveyed. These patterns are presented and discussed in the report that follows. Discussion of institutional context is introduced whenever knowledge of this context adds to the intelligibility of student perspectives.

RESULTS

Justifying Learning

The central focus of this report is not with curricular learning as understood by the faculty (Alverno College Faculty, 1976; 1979) or by other learning theorists. Our purpose is to describe the rationale for learning understood by students participating in the curriculum. Two outstanding patterns are evident from ways Alverno students speak about learning. One theme that focuses on why students should learn is strongly oriented toward preparation for work, for a career. There are indications that students additionally see learning as contributing to "well-roundedness" and half the students justify liberal learning as broadening one's mind. Learning is justified primarily in terms of its relevance to practicing a particular career or profession after college. Second, when students speak of why they learn, there is a heavy emphasis on instrumental learning, learning "how to do" or perform. Students characteristically assimilate almost all forms of understanding about learning to one or both of these different constructions. The construct learning "how to do" is particularly prominent. Frequently it is related to professional performance. Instruments for using learning in one's personal life, in addition to a specific career related context are also present.

Justifying Learning as Relevant
to Career or Professional Role

Students in this sample indicate that they understand college education

³The term "professional" is used here as defined by students and in the Alverno context, rather than as defined in sociological theories of occupations or professions. We describe patterns in viewing one's work as a job, career or profession and discuss differences in these perspectives in the study "Relating Personal and Professional Roles"

chiefly as preparation for work. Their expressed interests, motives, purposes and "educational philosophies" are strongly career centered. The following interview excerpts represent the ways in which these students express their career centered orientation. Examples are selected for the clarity with which they represent the shared understandings and common themes explicitly or implicitly expressed in the body of interview texts. The instances given are not, of course, exhaustive. A small sampling of the available material is used to illustrate patterns inferred from a much more extensive body of discourse. This use of text excerpts is made throughout this report. Names ~~are~~ used instead of code numbers to personalize the quotes. All names are fictitious, and are selected from name lists that exclude the actual names of all participants in the study. Identifying information is expunged, and the excerpts are occasionally edited for clarity. Interviewer speech is indicated with italics.

I'd like to shift the conversation again, and talk a little bit about what being here means to you with respect to your own goals and values. . . . I'd like to begin by asking you why you decided to go to college...

I decided to go to college because I wanted to be trained to do something that I enjoy doing. I did not just want to go out and get a factory job and make lots of money. I wanted to do something I felt was a part of me. I felt that what I wanted to do required a college education (Jennifer, Nursing, 1979, p.19).

What major goals did you have when you entered Alverno?

I wanted nursing and I wanted to learn as much as I could and I wanted to be a good nurse. I figured that by going through all this, I wanted to survive. That maybe was my main goal, to be a good nurse (Nichole, Nursing, 1979, p.16).

Have your goals changed at all since you came here? Do you have goals now that you didn't have when you first entered or do any of the goals when you first entered seem less worthwhile now?

Now that I have tested it... I've decided on my major, definitely Med Tech. I think my goal is to get over to _____ and do real well and pass my boards and become a Med Tech. I think that is my main goal that I am working on right now. I have sub goals under that. I do good in immunology... get this paper done and work my goals into the projects. But other than that, it is just preparing myself for Med Tech. (Virginia, Medical Technology, 1979, pp. 18-19).

These students, among others, express a strong purposiveness about their education. Education is understood in relation to its usefulness. This has become the case for Virginia, who reports that she came to college at her mother's insistence and would not have gone otherwise. She had no career plans when she entered, nor plans for an area of concentration. By her junior year, however, she has become career centered and expresses this orientation in many ways throughout her interview.

Within their participation in the curriculum, students typically express selective interest, motivation, and attention to their most career orientated course work. This is the learning they take most "seriously,"

... well no, that I am in my junior year I feel a lot better that we are emphasizing the Nursing and the medical more. But in your first few years it's just frustrating when you don't feel there is any significance to some of the things you are learning. (Bernadine, Nursing, 1979, p. 5).

Do you think your own changes in attitude have affected your learning?

Oh sure. I think that I can look at my learning or homework... more as seeing a purpose behind it: more how it is going to affect myself in my career later on. Right now in Nursing ... we're learning about diseases and medicines and how to do things, whereas Freshman year we were learning sciences and anatomy.... I would say, yeah, I see how this applies, but it has become directly oriented to what I am interested in. I think that has affected it too.

(Leanne, Nursing, 1979, pp. 8-9).

Do you think your own changes in attitude have affected your learning?

I - learning right now I approach - I think I attack it more.
I don't know if that is the right word but I take it more seriously
I think because I am getting closer to graduation and know that
I've got to learn this....

(Noreen, Education, 1979, pp.12-13)

Your learning is more important to you now or ...?

...well it definitely seems more important to me because right now I
am in my area of concentration classes ... when I was a freshman it
was more academic: history, science and things like that. But now
I'm into my major area of concentration so I'm more gung ho on it
(Noreen, Education, 1979, pp.12-13)

What do you think made you change?

I think just your interest in your own area of concentration because
once you progress through the years and start taking classes that
you are really into and you are going to apply to your major ...
I got really excited because I am actually learning what I will be
doing...my advisor and the instructor, who are both in Sociology, and
myself sat down ... and just went through my program and how they
thought I would do ... basically I am an Education major. I am
going to be a teacher but ... you need two minors or another major
and I am interested in Sociology ... but generally I'm going to be a
teacher so maybe I don't put so much emphasis or work into Sociology
as I should, or as I do in Education....(Noreen, Education, 1979, p.6)

Do you think you've changed in the way that you approach learning since
you've been here?

... a lot of the classes are more related to what I want to do so
of course they're more interesting and I want to pay more attention
and do better and work harder, that kind of thing. I can't say that
my learning pattern and my study habits are any different than they
were in high school (Eryka, Music Education, 1979, p.12).

So in order to get honors, a student would have to do well in virtually
every course they're taking, is that what you mean?

Right. I think that's a neat ideal ... but ... if you're really
to learn, you're concentrating on something that you want to do for
the rest of your life and so if you're in Nursing I'll bet you're
not going to put your all into maybe the Indian music class ... because
it's one of the things you have to take and maybe you'll do well in it
but you don't have time to put in your very very best.
(Eryka, Music Education, 1979, p.16).

The last excerpt illustrates both Eryka and Noreen's assumption that it is only natural to value one's career-relevant learning above other subjects, and she assumes that career-relevant learning is the point of education.

Note the phrase, "if you're really here to learn, you're concentrating on something that you want to do for the rest of your life..." Education is legitimated ("really here to learn") by its relevance to a career...to life after college. Other students share this "philosophy of education" and attribute it to the institution as well as themselves. Some of their accounts (such as the excerpt from Eryka above) suggest that students take this rationale for granted and do not consciously contrast it with other possible ways of regarding education, unless they compare their own educational experience to their friends' experiences at other colleges.

From the standpoint of Alverno, what do you think the ideal Alverno graduate would be like? How do they want you to turn out?

I think they want you working in the field they had trained you in.... I think just to carry through with what you are doing, like all these speeches that you've been giving, when some one asks you to give a speech you should just go up there. I think that is what they have been preparing you for.... I think just doing what you do best the way you learned it here. Taking, like in science, all the techniques I've been learning in the lab and carrying those with me and apply those to my field. That is all I can think of (Virginia, Medical Technology, 1979, p.7).

What would you want to communicate to a student who is thinking about coming to Alverno as a new student? What do you think would be important for them to know?

The major thing I think would be important for them to know is that when you come to Alverno you have to expect to work.... because they do have the philosophy of getting women to become professionals and better themselves, you have to expect to work to get to that point...

Why wouldn't you concentrate on it's an all woman's school and things like that?

Cause I think some one who is really interested in getting an education it doesn't matter that much ... if you are really serious about a career and really serious about your education something like that is not quite as important ... (Jennifer, Nursing, 1979, p.1-2).

Justifying Learning as Relevant to Professional Performance and Wellroundedness

Students express career or profession centered rationales for their education and view it as consistent with the college's rationale for the curriculum, in other words, with the design of their educators. The meaningfulness of day to day educational experiences of these students is largely constructed upon perceived relevance of these experiences to professional performance. Accordingly, they evaluate educational experience by criteria of relevance to an envisioned career or professional context. And some relate this to their identity of "becoming a professional" (e.g. Jennifer), not just an externally based "having a career." Students consider it natural and desirable that they should prefer and direct most of their efforts toward those aspects of the curriculum most directly relevant to one's career.

But this is not the whole story. Students also refer to Alverno as a liberal arts college. They consider their education to include "liberal arts" and recognize "well-roundedness" as part of the institutional rationale for the curriculum. The "well-rounded," "liberal arts" background is expressed as learning which balances the individual's professional education so that one's career is not "all one knows" or "all one can talk about."

Liberal learning gets assimilated to students' career centered focus in interesting ways, which will be discussed further on. Where students are unable to find professional relevance for educational experiences, they may feel justified in rejecting these experiences or criticizing their inclusion in the curriculum.

This thing with the curriculum now, what kinds of changes would you really like to see? What are you working toward or working for?

My major goal is to have learning experiences for students that really do facilitate nursing as nursing is ... I can not see spending time on a cultural paper when right now with nursing I should be learning the physiology and nursing interventions and stuff. I should be concentrating on nursing and not on something that has very little influence, as to what I am going to learn. What is most important for the student to learn and to act on those, and that is where I am coming from when I make my suggestions. What is it that the student needs to know the most about right now to be able to make them work well on a unit? And that is something that has little influence on their learning in that way (Jennifer, Nursing, 1979, pp.15-16).

...I took an integrated competence seminar and I could see what they're trying to test but I thought ... it was really dumb. It was right before recital ... I should have been practicing during that time. I had to go up and pretend; I hate those pretending ones. I couldn't picture myself ever doing that, it didn't relate to anything I'm going to do They said 'Oh, someday you may be a concerned parent ... on a committee'.... But I'm never going to sit in an office on Saturday and dictate my own letters and all the goofy stuff they have you do up there. And things like that, that really can't apply. I can't stand things ... that I can not see any potential use for. Here's another thing that will happen anywhere, I'll bet you; having to take an education class that's so general that - like I had to take a remedial reading class and I'm going to be a music educator ... going through the class was very upsetting for me because there was almost no effort for me to apply it to what I'm going to do by the text we used.... I can't stand things that I can't picture myself ever applying them. ... I still feel disgust when I think of the times I sat in those classes and now getting out of them and realizing that I'm still not going to use that much of them (Eryka, Music Education, 1979, pp.15-16).

At the same time, of course, all students are required to participate in liberal learning courses that are not specifically career related. The competences are, by intent, generic. The competence criteria for performance may be quite specific, but the student is expected to infer the competences from criteria for performance, and to understand them as generalizable, not only across disciplines, but across life domains: education, work and "personal life." In order to be validated in the

competence levels, a student will find that she must enroll in courses in Arts and Humanities, or other traditional liberal arts courses since certain levels of certain competences can only be completed in these courses. Students often understand that the availability of certain competence levels is strategically scheduled to ensure that students will have a "wellrounded" background, and this experience may ultimately elicit a rationale that "wellroundedness" or personal growth is a positive value.

Learning experiences have many forms, two of which were just described by Jennifer and Eryka. Competence validation may be awarded for meeting the criteria of course assessments. More often, projects, reports or other kinds of performance modes are involved. Most of these learning experiences and assessments occur in the context of courses and many of these are part of a student's major curriculum. However, where learning experiences occur in the context of the student's major discipline, they may not be concerned with actual technical knowledge of a given field. Such was the case with the "cultural paper" (Valuing competence) referred to by Jennifer in the preceding excerpt. The cultural paper is assigned as part of the Nursing curriculum. The curricular rationale is that an exercise in the analysis of value systems of other subcultures is an appropriate part of professional (as distinguished from the purely technical) education for nurses, who often must work with people of different backgrounds. Such an exercise pertains less to the technical knowledge of nursing, than to the social context in which it occurs. Students vary in the extent to which they understand such exercises as relevant to professional performance and can include it in their definitions of the study of "Nursing."

More often than not, the requirements for exposure to a variety of subjects and especially the requirements for extensive involvement with demonstrating competences in a variety of disciplines, lead students to the expressed conclusion that a lot of their education is, in fact, relevant to their professional education. Students develop a justificatory system which ultimately assimilates all kinds of learning (i.e. the subject matter of a variety of disciplines and the competences) ultimately to career or professional performing, thus drawing institutional conceptions of liberal learning into their focus on education for work (usually called either "professional" or "career" preparation by students). Students perceive that some time is spent in class, for example, going over how subject matter and/or competences "apply" to various careers represented by the students in the class. Students, moreover, sometimes explicitly attribute their own justificatory rationale to the institution. It seems apparent that students see some instructors helping students to "relate" various kinds of classroom work to future career contexts. Whether with the help of instructors or on their own, students develop a rationale for the usefulness of learning in professional performance. The competences in particular are justified in terms of expected contribution to effective professional performance.

How would you describe the rationale for the Alverno Learning Process?
What do you think the educational goals of this kind of a program are?

I think the goals are that, ... from a nursing perspective because that is my main area ... to be an effective nurse, you have to be able to integrate the things that the competences bring out into your nursing career, such as social interaction, communication. Those kind of things you do every day in dealing with your patients. The ability to analyze and problem-solve. All those things are necessary to be effective. Also if you are ... going into administration ... if you want to be a professional type person in which you are able to

deal well in situations and feel comfortable dealing with different situations I think you have to be in touch with where you are in terms of the things that the competences test for ... your analysis ability ... your ability to stand up on your feet and give a speech ... being up on current events. All those things are important in a well-rounded person. (Leanne, Nursing, 1979, pp.4-5).

Well, I just think it's going to benefit you in the long run. When I graduate I'm going to be able to analyze and problem solve and be aware of things I would have never been aware of if I wouldn't have come here. And I just learned so much being here ... and just applying it to my career is going to be really good. (Noreen, Education, 1979, pp.8-9).

General "well-roundedness" seems to be assimilated to a student's conception of "professionalism" (i.e. career relevance) and to becoming a professional woman.

From Alverno's standpoint, how do they view the ideal graduate?
How do you think they want people to turn out?

Well, ideally, having knowledge and being able to use it in many areas. And I guess I would have to add to that professional, that hopefully a graduate from Alverno would be a professional woman whether she is a nurse or teacher or manager or whatever. That is probably the ultimate goal. (Barbara Sue, Education, 1979, pp.8-9).

What does that mean to be a professional? What kind of definition would you have for a professional woman?

I would think that some one who is professional is well-rounded ... I mean well-rounded academically but not just concentrated in one area like business schools ... but have a broad sort of background, a broad Liberal Arts sort of background. (Barbara Sue, Education, 1979, pp.8-9).

Students speak broadly, if not specifically of the relatedness of liberal learning to their career fields.

...I think they teach you to pick out those things like the main ideas ... that is why they have essay tests ... to get more theory and the basis rather than, you know, details.... the whole basis of the program is they should be able to write papers based on these ideas.... pick a basic idea, relate it to something.... That's another thing with these CLUs /Competence Learning Units/; like the Environment and Contemporary World and Aesthetic Response, you can be relating to that your field. Most of my CLUs are now relating into my field, Med Tech. I think that helps prepare you for what you're going into. (Virginia, Medical Technology, 1979, p.7).

...We don't only have Nursing, but we do have to have the writing and interacting and outside courses - Arts and Humanities (Bernadine, Nursing, 1979, p.4).

How do you feel about that?

I think it's important. Like in some of my classes that don't have anything to do with nursing, they still bring it into Nursing and I can see a relation to it. (Bernadine, Nursing, 1979, p.4).

There are certain exceptions in the pattern of consensus regarding career relevant justification of learning. Some students are rather more selectively sanguine about career relevance of the competences, or at least the learning experiences representing them. They see some learning experiences and assessments as useful and regard others as lacking in applicability (e.g. Jennifer above, on the culture paper) or even as outright senseless (Eryka above, on the Integrated Competence Seminar assessment). It is noteworthy that these students express dissatisfaction with those learning experiences or assessments for which they can not find career relevance, and that this is consistent with the general pattern of the justificatory system. The most outstanding case in this regard is Lena, the text of a Nursing student. Lena does not, in the course of her interview, justify the competences by their professional applications. Lena also expresses the most dissatisfaction and outright unhappiness with her education of anyone in the sample.

An important pattern to be noted is that half the students (7 of the 13 in the sample) speak about learning outside of their field without reference to its usefulness. A number (3 of 13) express intellectual curiosity and satisfaction related to encountering "new ideas" and broadening one's awareness, without simultaneously assimilating these experiences to professional performance. Awareness of general education as learning for its own sake is probably not as important to a

construction of education centered upon professional preparation for all students in the sample. The other half of the students (6 of the 13) in this sample do not, in the course of their interviews, refer to learning in content areas outside their major. If they do, they mention it to show how it ultimately relates to their professional preparation, or alternatively, to express disinterest. Practically all students justify education through its relation to career, and half additionally express intellectual curiosity and broadening their awareness. This is some indication that students' initial justification of education as preparation for work gradually takes on a concept of education as "opening one's mind." That this is developmental is an intriguing hypothesis to be followed in further analyses. Assimilating "wellroundedness" to one's concept of self and "becoming a professional" may be a first step in beginning to understand the view of college as "opening one's mind," as personal growth.

Students believe that faculty encourage development of rationales justifying learning developed by students. But it is possible that students learn to repeat or model this rationale without making it part of their more internalized belief systems.⁴ Do these students really believe that liberal learning will enhance their performance of professional roles? To what extent do they understand the extended context of professional performance implied by this rationale? We cannot conclusively address such questions on the basis of interview

⁴ The use of the word "professional" is a case in point. Students may use the word without having internalized the characterizations commonly associated with the term such as social commitment, life long learning and continual development of one's professional abilities.

texts alone. Perhaps students in the sample were using the "appropriate" language common to faculty and students.

There is little reason to question the origin of the students' rationale career relevant orientation to college education. What is of interest is that these students have come to assimilate ways of learning to their understanding of professional preparation. Perhaps the best evidence that these students mean what they say about curricular learning is that they criticize those portions of the curriculum they do not see as fitting the pattern. This implies acceptance of most of the curriculum as justifiable according to similar criteria. Whether students have internalized their justifications quite thoroughly or not, these are, in any case, a part of their interpretation of their educational setting. If the rationale students give the interviewer is not really what students have internalized, then it may be what they believe they are supposed to think. As such, it is an equally important aspect of understanding the educational system as it is understood by students.

A more precise interpretation must be left inconclusive for now. It is nevertheless possible and worthwhile to pursue further precision in the patterns by which the rationale unfolds. To describe these patterns is to raise more incisive questions about their interpretation.

The Meaning of Relevance

Understanding Ways of Learning

Within any discipline, we can distinguish several possible ways of learning. We can speak of "content," as Alverno students do, or substantive knowledge pertaining to a field of study which include

observations, concepts, frameworks and theories that structure the domain of a field. In addition, we can speak of methods, processes, skills and abilities that pertain to practicing a given discipline; how-to-do Anthropology, Philosophy, Management, Physics or Nursing. The competences do not fall within either of these categories, but, like the disciplines, incorporate both.

In their theories of program rationale, Alverno students contrast the learning of "content" with the learning of "how to use" or "how to apply" what one learns. A general assumption appears to be that learning is or ought to be useful. The students regard the Alverno program as concerned with teaching them "how to apply" what they know.

They're trying to get you ... to take what you've learned and be able not to just know it but to really do it, to be able to apply it to a lot of different situations. That's the big thrust around here is to be able to take what you've learned and apply it and be creative and think of new ways of doing things.
(Eryka, sic 1990, p. 10)

From Alverno's Standpoint, how do you think the ideal graduate? How do you think they want people to turn out?

Well, ideally, having knowledge and being able to use it in many areas. And I guess I would have to add professional, that hopefully a graduate from Alverno would be a professional woman whether ... a nurse or a teacher or a manager....(Barbara Sue, Education, 1979, pp.8-9).
Do you mean that the competence based learning program appealed to you?

Yes, the ungradedness of it, like moving through at your own individual rate ... The emphasis not on accumulated knowledge but on doing something with the knowledge that you have.(Barbara Sue, Education, 1979, p.23).
How would you describe Alverno generally?

... it is a small private school, a woman's college which doesn't give grades but is based on a competence system ... I usually give a few examples of how here we are taught to analyze and problem solve and apply those to our classes so we will be able to use them when we are out in the world after we get our degree. So that is basically how I would describe it.(Noreen, Nursing, 1979, p.1).

In these excerpts students are talking about how they understand the purposes of the curriculum: to teach them "to apply," "to use," "to do something with," to "be creative and think of new ways of doing things" with one's learning. The language they use indicates that the students mean this in an immediate and practical sense: to use what you know in "a lot of different situations," "out in the world." The competences are frameworks for use; theories for organizing information, judgment and action.

The following excerpt shows how a student justifies learning on the condition that she can see some purpose in it.

Do you think that the change in your attitude has affected your learning? Do you think there is a relationship there?

Yes, because when you're happy with what you're learning ... it's not a chore to do the projects. I can see, if I didn't understand why I had to do a valuing project on a different ethnic or cultural group, I would be ranting and raving and rejecting it completely. ... But if you can understand why you have to do it, why understanding your values are important, you're going to do it a lot more willingly. You'll get something out of it too (Julie Lynn, *Cursing*, 1979, p.13).

This student wants to understand why she should learn what she learns, and how it is important. In other words, she wants to find a purpose for learning, say, about subcultural belief systems.

Learning as Content

Alverno students recognize a domain of "content" or substantive knowledge that they view as a basic core of their discipline. A minority of students in this sample (4 of 13) regard their curriculum as somewhat deficient in the "content," "basic facts," "theory," or "book learning" of their disciplines. The competences may be seen as "extra," non-disciplinary work that competes for their time and attention with the learning of their discipline. For these students, learning is equated with what is learned; "real" learning is understanding content.

... I can see the point of it but still my need isn't getting accomplished in the meantime. ... I'm talking about like reading. I'm doing so much paper work I'm hardly doing any reading at all. If I'm not doing any reading how am I going to do, you know, I have to take time to do the paper work, but the paper work has to do with what I've read and how I'm going to apply that. If I'm typing all the time how can I take time to look at a book to see what I'm going to say. You have a little time to do that but not to let it really soak in. You look at a theory here and a theory there and it doesn't soak in but yet I have to apply that. I have to write about how I would apply that ... If I don't really know the theory, how can I apply it? So I'm really just wasting my time writing up the journal when I could be reading (Lena, Nursing, 1979, p.11).

If you could have your way, how would you change Alverno to make it a better program?

... What would I do to change Alverno? ... I would put more emphasis on content in classes... (Lena, Nursing, 1979, pp.17-18).

... I need to feel that I'm doing the best job that I can. To do that, I really need to do some learning, that's what I need. (Lena, Nursing, 1979, p.20).

More of the kind of learning you're doing now or something different?

More of the experience but also ... there's not nearly enough of the book learning and there has to be a lot more of that (Lena, Nursing, 1979, p.20).

... Sometimes I think maybe there should be even more emphasis on ... like tests. There are very few tests around here and the emphasis is taking what you know and applying it in different situations that you'll encounter. ... But on the other hand, are you really learning ... sometimes I wonder like in my area are we really learning some of these just basic things which we can build on. ... Sometimes I think Alverno lacks basics because they're trying to get you to be more advanced in ... using your skills (Eryka, Music Education, 1979, pp.7-8).

... I think I'd make sure that some of the music theory courses had basics that people need and make sure that there was some of those basics going on 'cause you can BS your way through a lot of abstract things and a lot of applications, that's easy to do. And sometimes you need more of the facts. It's harder ... to get some basic facts down and drilled into your mind. Cause you can make up stories until you're blue in the face about how you can apply this and that, and that's easy to do (Eryka, Music Education, 1979, p.20).

While students generally see the competences as career relevant, they may see the competences as less crucial if content or "basic skills" are perceived to be in competition with, or the whole of the domain of concepts, theory and skills pertaining specifically to a discipline.

In the overall pattern, however, the role of "content" or substantive knowledge is to be used in performing. Substantive knowledge is assimilated to processes and skills of one's discipline and to the competences.

Well, I think it's the program skill oriented rather than content oriented and it looks at process, you know, you got the answer to that problem but how did you get that answer ... and what did you do in getting that answer that you can apply in other problems like whether it be a Math problem and you're applying it to a Psych problem, or within the same content area. ... Basically, it's teaching thought processes and then generalize them into the areas would be the work that you do in content areas. That you may not only do a Problem Solving competency in Math but maybe in Management or maybe in Religious Studies. You then generalize that process that you learned (Barbara Sue, Education, 1979, p.8).

Learning as Process

A number of students in certain of their statements describe learning as doing.

...I don't think that their lecture should be word for word like the material, I think they should get group involvement in lecture and experience. I had one instructor that would explain everything ... we would read something, she would explain it to us and then she would give us an activity work-through and I really learned through that because you experience what she is talking about. It relates more to a person if they actually do it than just to hear it lectured at you. I know through my experiences, just to listen to a lecture, you just start daydreaming. You don't really learn anything... (Pamela Lee, Library Science, 1979, p.3).

Jennifer values experiential learning where she takes an active role to "open up and take in," "sit back and look it over," and then "try it and see what happens."

Have you changed in the way you approach learning since you have come here?

When I came here ... I think I have learned in a lot of things from ... what I saw others doing ... now when I sit back and learn again it's the whole thing where I open up and take in as much as I can take in about any type of situation, any kind of learning experience and then sit back and look it over and then go out and try it or watch some one else try it and see what happens. Usually what I will do, I will go out and try it and see what happens. (Jennifer, Nursing, 1979, p.10).

In speaking about learning, these students are describing learning as a process that includes "actually doing it" and "going out and trying it."

These students are indicating that they expect to do something with learning, and that learning is a process of experiencing, reflecting, and experimenting.

What kinds of challenges has being here at Alverno created for you?

Well, I think academically the challenge was to apply that "fact" knowledge that I was used to using in the past. I think that I was able to do that ... in high school ... but was really never demanded to do that. So now new demands have, you know, forced me to perform in that way, to concentrate on the thought things, to speak in front of a large group and things like that... (Barbara Sue, Education, 1979, pp. 15-16)

And what the expectations with learning is 1) to assimilate it to processes and skills of one's discipline, where learning includes the technical knowledge of one's field or 2) to assimilate it to the competencies which link one's learning to performance.
learning How to Perform.

The predominant theme in these interview texts is learning "how to do," to perform. When students speak of what they have learned, are learning, or expect to learn, it is highly probable that they are talking about how to do, to perform. The language of learning used by these students

is focused on its usefulness. When they are not speaking of learning technical knowledge that will enable them to practice their disciplines, they are speaking of learning how to perform according to competence frameworks. Other kinds of substantive knowledge may be spoken of in relation to one or the other variety of applications. The following excerpts provide examples of the kind of reasoning by which students sometimes relate liberal learning to their professions:

You get a more varied education here it would be very easy to teach nursing and nothing else. ... But because of the competence level units you learn a lot of other skills, a lot of other things. And if you have to take Contemporary Jewish Thought for a CEU /Competence Learning Unit/, well, you get your CEU but there's a lot of other things you get out of class that I'll be able to use in my nursing because I'll be caring for Jewish people and having been in the class, I'll be more aware of what their religion is; how you're going to change their dietary program to fit into their religious beliefs and all that (Julie Long, Nurse, 1979, p.8).

Can you tell me how a course in Arts and Humanities might benefit you as a nurse?

... because you constantly have to be creative and I think that teaches you creativity. You're walking right into problems, how are you going to deal with that, or if it's a small child, how are you going to provide for them ways to be active in the hospital. ... You have to be ... creative that way. I think you become more sensitive to creativity being exposed to the arts. ... in everyday life ... you'd feel more comfortable talking about things ... at a cocktail party or something, and go oh, I remember that and then you can talk about that too. You're not just sitting in a corner and thinking about surgery all the time (Julie Long, Nurse, 1979, p.8).

In a more frequent line of reasoning, "use" or "application" of learning refers to the competences. These are what are literally applied to work and other life situations when one looks at first hand testimonial reports of students in the sample. The competences are central in the structuring of learning to perform. The implication is that other kinds of substantive knowledge, observations, ideas, concepts, frameworks, theories, and so on, are assimilated to competences which structure learning how to perform. That is, the role of substantive knowledge is

its use as constructs feeding into the interpretive structure of the competences for the organization of judgment and action, or theory in use.

If one were to rank ways of learning according to the order given them by students, the ranking, from highest to lowest would probably be:

1. Learning as content (technical knowledge) of all kinds pertaining to one's particular profession.
2. Learning as process that includes experiencing, reflecting and testing out.
3. Learning how to perform competences through learning experiences perceived as relevant to professional role performance.
4. Learning substantive knowledge of other fields perceived as potentially related to professional performance, through competences or otherwise, which may also contribute to well-roundedness and opening one's mind.
5. Learning substantive knowledge and demonstrating competences not perceived as applicable to projected life contexts.

Such ranking is undoubtedly a simplistic device, but it shows how the two principles of career relevance and usefulness appear to combine to determine the perceived meaningfulness of learning for these students.

The question that arises is precisely how, in what manner, the competences come to be perceived as relevant to the student's professional performance.

Understanding the Relevance of Competence to Professional and Personal Performance

The competences themselves are integral to the practice of a discipline or profession and they may be taught in relation to hypothetical professional contexts. The competence definitions are generally not a part of the informal or conventional bodies of substantive knowledge pertaining to the professions of these students, since most disciplines teach substantive knowledge, and do not explicitly identify competences or abilities.

These traditional aged students have probably not yet developed precise conceptions of the more subtle demands of professional roles known to experienced practitioners, and are not far enough along in their field experiences to envision highly situated professional applications of the competences. Students become aware, however, that nursing or teaching or any other profession involves situations in which one must solve problems, interact with other persons, and make value choices. Students will have images of the more typical situations in their professions but these are not the same as the images of an extensive and varied repertoire of professional performances held by an experienced practitioner. The relevance structures for these two groups are most likely different.

We can not assume that a student's perception of the competences as relevant to her profession is based upon a very precise understanding of what the non-technical context for her profession actually is. Some students, particularly Nursing students, comment that they learn hypothetical applications of certain competences. Hypothetical cases and communicated experiences related by faculty, most of whom have been or are practicing, support students' development of a rationale of relevance for the competences. But these are but one part of the story. We would like to know what first hand experiences students have that account for a belief that competences will contribute to one's adequacy in future professional roles.

This is borne out by faculty experience with non traditional aged students, who are more likely to see relevance immediately.

Understanding Competence as Categories
and Rules, Skills and Processes

We can not assume that an entirely sophisticated understanding of the competences at this point underlies student's perception of usefulness. The minimal level of understanding necessary for validation at the beginning competence levels requires that a student understand the competences as steps for making relationships and rules for performance. The competences are meant to be more than this, and a few students in the third interview did give convincing evidence that their understanding transcends categories and rules.⁶ "Competence talk" in the interviews describes students experiencing the competences as applying categories and rules, and following steps; or else they speak of competences in general terms so it is difficult to tell what they mean.⁶ Some examples of typical "competence talk" follow.

From the standpoint of Alverno, what do you think the ideal Alverno graduate should be like?

Well, I'm sure they want you do be educated in your field. ... and ... they feel that you should be ready to deal with anything which comes up and you should be able to get along with people in talking to them. Like in our Communications skills, know how to talk to a person and how to understand them. Like in our Social Interaction, we should know how to paraphrase ... what a person is saying. Sometimes when a person is talking you may think you know what they are saying but maybe you have a different interpretation. ... So it teaches you to get an understanding, and they should get an understanding of people. ... So I think they're getting you so you can deal with the people ... 'cause people have all kinds of different ... instincts and characteristics, and I think they try to prepare you to deal with each one of them. ... try to ... get an understanding and know how to communicate with people... (Beatrice, Nursing, 1979, pp.8-9).

⁶While the interviewer probed for examples, not all student observations were probed. Lack of examples can also, however, be evidence for less conceptual complexity.

For each validation we contract for a class, you are exposed to or given learning experiences that will help you achieve validation. ... Say one of your validations is English, and you are analyzing a story or something. Okay, learning experiences are experiences that help you analyze a story. What is needed in analyzing, the story, how do you pick out certain things in a story, induction, deduction, things like that ... (Noreen, Education, 1979, p.12).

... even if ... you have a personal problem yourself or a friend has a personal problem ... I find myself going through it, well what is the goal, what are the alternatives. So that thinking that may be taught in the Problem Solving competence can generalize to non-academic situations and into areas of my personal life and into areas where I can help other people. ... (Barbara Sue, Education, 1979, p.25).

I'm very glad they made us get as many Communication assessments that we've had. ... speaking I really value the most because I was always petrified to get up and speak in front of people ... and I can see where that will be useful as a nurse. You never know what situations you're going to end up in, you may be asked to give a speech sometime ... (Julie Lynn, Nursing, 1979, p. 25).

In terms of Alverno's competence ... I ... have had really good experiences in becoming more aware of my own values and how important they are as well as others' values and how important they are to them, and the importance of respecting values. So that has been very important to me, and Social Interaction, because it is an important part of being a nurse. But also to deal with people you have to interact one to one and to be able to talk effectively as well as in a group, knowing how to function as a good group member. (Leanne, Education, 1979, pp.18-19).

What is the value of Alverno with respect to your present personal and career goals?

I want to get out and work with people and so through Alverno I have learned how to interact with people in group situations. I have learned how to problem solve, and if I'm working with people I have to problem solve. It's people-oriented, the program. It's oriented more towards people aspect and that's what I want to go into, working with people ... (Pamela Lee, Library Science, 1979, p.18)

Well, one of the eight competences is valuing, and Alverno teaches you to be aware that we all have values and teaches you to value different things that you not necessarily would have valued before. In English class there's a lot of valuing CLUs /Competence Learning Units/ that you can obtain. And we are taught to value pieces, like stories, pick out the values in them, value works of art that we didn't normally look at, and value that there are things that we should could value that we are not aware of. And here they teach you how to value things, or how to look at them ... In an art class I was in we were given works of art and we had to analyze them and pick out elements of the picture. But also we were taught how to value this picture appreciate it ... (Noreen, Education, 1979, pp.9-10)

How would you describe the rationale for the Alverno Learning Process?

The main goal is to produce competent women, who are going to be able to go out and face the world and be able to use these skills they have learned.... (Noreen, Nursing, 1979, p.9).

Could you give me a definition for a competent woman?

When I look at that word, I look at the eight competences, the ability to understand and apply it to your career, your classes ... the only thing I can think of offhand is being able to apply these skills. And understand them ... I think it is basically that. Because that is where I got the definition from, just hearing it from Alverno. I'm sure they go into it in more detail but ... just able to be a good skillful competent person in nursing. (Noreen, Nursing, 1979, p. 9)

What do you think the educational goals of this program are?

... I think what they're looking for ... when we graduate I think what the instructors want us to feel is that ... you are an individual who can communicate with people, who can problem solve, who can analyze situations, value other people, you can socially interact with other people, you know, understand the environment. All those competence level units that you have to get and you've demonstrated, they know that person is able to function in those areas.... (Julie Lynn, Nursing, 1979, p.9).

Some students are more apt to describe competences as categories, rules, skills and processes than others, and to do so more consistently. An indication of possible understandings of competences as skills and processes lies in terminology students use to talk about them. These students speak for example, of learning "how to problem solve" or of the need "to problem-solve" in work situations; or they speak of how nurses "are always problem-solving." They speak of "how to value things" or "how to value other people." They speak of "how to socially interact with other people" and of being "a good social-interactor." These and similar constructions are common usage. They imply that competence terms are

regarded as names of specific processes and that students are referring to these processes.

Understanding Competences as an Integrated Theory of Action

The competence talk of students implies that they are beginning to glimpse the essentially interpretive and inferential nature of competence. The competences, taken together with their implicit interrelationships provide a symbolic network for organizing one's social universe and one's action within it. The network creates a structure of relevance against which events are interpreted or defined, and judgments made. When appropriately integrated, the competences cover immense territory. They provide a system of categories and relationships for interpreting social events; they give systematic rational processes for making judgments and decisions about action; they instruct in a repertoire of skills for effective social behavior; and they coach for skills in performance aspects of discipline related processes and techniques. They are, in short, a kind of theory of social action.⁷

The question then, is how much of this structure students understand at this point in time. Most students do not yet appear to have metatheories of the competences that take into account the existence of a symbolic or interpretive framework that holds the entire system together. Actually, faculty do not expect that traditional aged students will grasp the existence of an interpretive system, abstracted from its use, without more.

⁷ The faculty have defined, and consistently work to improve definitions of the competences (cf. Earley, Mentkowski and Schafer, 1980). The competences are not necessarily defined in ordinary language since they represent constructs or abilities that have been researched to greater or lesser degrees. The term "social-interaction," for example, is more specific and less inclusive than the same term in ordinary usage. It means Social Interaction defined by faculty.

extensive life experiences. What is expected is that students will continue to develop their understanding of the interconnectedness of the categories and processes of the competences within the system, and use them to generate (and not only ~~implement~~) judgment and action.⁸ Problem Solving, for example, might provide the student with a systematic, rational process for making a decision about what should be done. If she is using the competences as an integrated system, the problem itself is defined in terms of the other competences, and implementation of the processes would take into account the categories and relationships that other competences have taught her to recognize. For example, her understanding of the role of valuing (as taught by the Valuing competence), her understanding of the relation of events to their social environment (Individual Response to the Environment), and her understanding of interpersonal dynamics and objectives (Social Interaction) would be part of her construction of the problem and plausible solutions.

Just as compartmentalizing the system at first is critical to the student's initial grasp of what is meant by competence, understanding these relationships requires that a student decompartmentalize the competences and understand them as an integrated network. The textual

⁸ Faculty have defined the competences as developmental, generic and holistic, that is that they become characteristics of the person that continue to develop and that transfer across situations. This is also reflected in the definitions of the "Six Performance Characteristics," as they are called. The characteristics are: Integration, Independence, Creativity, Awareness, Commitment, and Habituality (this last refers to the consistency with which a student manifests the other five). These characteristics are not a formal part of the learning or assessment process. That is, students are not assessed and validated on these characteristics. They are rather part of an informal faculty record of student development through the program. The Six Performance Characteristics are, however, outcome goals of the program. It is expected that the learning process will result in student growth toward these characteristics, and that, in general, students graduating from the program will be higher in these characteristics than students at lower levels of the program. Faculty define these characteristics and their manifestations at "beginning," "developing," and "graduating" levels (see Section II for Results).

evidence that students fully understand this kind of integration at the end of the Junior year, is weak, but many students do give evidence that they understand at least part of the logic of the interpretive network, and that they recognize, at least within its compartments, an interpretive component. They recognize that the competences offer them ways of looking at things, ways of understanding things, ways to be aware of what is important.

You are also allowed, through the competences, to learn more about yourself ... the competences in a way push you to become a better, more defined individual or to get to know yourself better. For example like Valuing, you are forced to look at your values and evaluate how you think and how you apply those to what you do. (Leanne, Nursing, 1979, p.1).

... I see Social Interaction and Communication as very important because so much of what we do we do with other people ... we are social beings and therefore those kinds of things are important and ... when you're working with people you have to ... analyze their behavior ... you're looking at their behaviors and you're putting them into some kind of perspective. I think Analysis is very important because, again, it's related to other people and how you respond to them. (Barbara Sue, Education, 1979, p.28).

... they heighten your awareness to certain things that they feel will be important ... they make you aware of different life styles, make you aware of other people's, so that you can identify your values accordingly and know how to react and how you will react so it isn't such a shock when you get into a hospital and you know that you can't relate to somebody who is black or something ... you know already how you're going to react. (Julie Lynn, Nursing, 1979, p.9).

How would you describe the rationale for the Alverno learning process? What do you think the educational goals of this kind of a program are?

To improve the person, to expand in all different directions: their understanding of different areas, their values, to learn about themselves, communication skills, the outside world, their environment, things that you wouldn't learn on a grading system. Improve your awareness of what is around you, inside you, yourself and how to relate to things.... How you relate to the environment ... to the outside world, social interactions, how you relate to each other on an individual basis, on the group basis, and in the grading systems ... unless you take a specific course, I don't think you have extra experiences in how to relate to a group and how to reach certain goals, and problem-solving skills. I am learning that here and I can go into a group and feel a little more comfortable than I used to. I know that for sure. (Camela Lee, Librarian Science, 1979, p.6).

It is difficult to know to what extent students transcend a compartmentalized construction of competence. The meanings of competences for the most part appear to remain bound to the more explicit step by step processes provided by competence criteria for assessment. In the excerpt below a student speaks of how her competence learning has helped her to aid a friend in a family crisis. What is notable is the emphasis on having a step by step process, one that transfers to a situation in her personal life.

Yes, Alverno made me sit down and look at the process I am going through, which I think is good because when I am able to do that then I can deal with each aspect of my Problem-Solving or my Valuing, or whatever. And instead of trying to take the whole thing and trying to make a decision, you deal with each little part. First, then come to your final decision or whatever you are going to do, which is good because otherwise when you deal with the whole thing just as a whole, not the part, there may be things that you miss; or you may be so bottled up that you don't know what to decide because there are so many different stimuli coming in and you don't know where you're at. But when you look at each part you are able to deal with each part separately and at a time and then be able to do something about it. And you know that your decision is based on a lot of thinking and a lot of work through a series of steps ... (Jennifer, Nursing, 1979, p.13).

Students are clearly beginning to consistently perceive the interrelationship of Valuing and Problem Solving. Students appear generally to know how to talk about integrating these competences. In fact, criteria for assessing level four of the Valuing competence suggests a way to interlock Valuing in decision making, which is closely allied with Problem Solving.

The fact the students don't speak of the competences as an integrated symbolic system abstracted from compartmentalized procedures, is not sufficient basis for concluding that the students never use the competences in this way. But if they do, they don't seem to be aware of it yet. Integrated performance may come first; internalized understanding later.

Understanding Competences as Theory for Performing in Relation to Context

The competences are intended to function as an integrated symbolic system for organizing experience, reflection, judgment, and action. Considering this within the context of professional role performance, one could say that they are intended to function as a model for discretionary performance, for performing in relation to a context, for making appropriate judgments about what-to-do under circumstances where the expectations are ambiguous. Students have spoken of the competences primarily as processes for "how to do" things. It is true that the Problem Solving competence is a paradigm for how to decide what-to-do, and students know this. Of course, having a procedure for deciding what-to-do is not the same thing as knowing what is relevant, appropriate, useful, sensible (including, for example, when and how to use one's problem-solving model), under what circumstances, in which contexts, along with the ability to creatively combine such information into a course of action. The competences, taken together, are meant to amount to at least a basic framework for these kinds of judgments for performing one's abilities in relation to a particular context.

When students speak about purposes of competence-based learning they often mention its relevance to professional performance and they are apt to use phrases like "adapt to situations," "deal with situations," "know what to do in different situations", or in "whatever situation arises." The consistency of this language is so great as to indicate that this language is part of a rationale students learn in formal situations. Knowing what-to-do in novel or ambiguous situations is intended by faculty as a representation of discretionary performing in professional contexts.

It can be understood in other ways, however, that are more consistent with the student's process bound and compartmentalized understanding of competence. Many students appear to mean something like: "In the event that I should be called upon to give a speech or lead a group discussion, I will be able to do so." Sometimes students also seem to mean that they expect that somewhere along the way in their education they will have been coached in what-to-do in the various kinds of particular situations they are likely to encounter in their work settings. They will have, in other words, rules for specific situations, and they will be less likely to encounter situations that are truly novel.

What competencies do you value most?

I'm very glad they made us get as many communication assessments that we've had. ... speaking I really value the most because I was always petrified to get up and speak in front of people ... I can see where that will be useful as a nurse. You never know what situations you're going to end up in. You may be asked to give a speech sometime and it's being able to speak and communicate with others, it's an asset you can't do without. (Julie Lynn, Nursing, 1979, p.25).

They want you to turn out so that you can do your job well, so that you can be at home in many different situations and when something new comes up it won't surprise you ... (Eryka, Music Education, 1979, pp 8-9).

How would you describe the rationale for the learning process ... what do you think the educational goals of this kind of program are? What is the basic rationale behind it from your point of view?

I think to be able to recognize all the different ways of wanting to use them professionally in some kind of demonstration ... when you are able to do that you are going to be able to adapt to any kind of situation ... I have been taught all these different ways of being able to learn and being able to do demonstrate what I have learned and I evaluated each one and where I'm at and which one I am better at and stuff like that. When a situation does arise I'll be able to say this is what I am going to use or this is what I need to work on in this situation ... (Jennifer, Nursing, 1979, p.7).

... I've had many instructors who have been beautiful, real models for me, just perfect. They do a lot of what I'd like to see myself doing and they are doing what Alverno values. I have an instructor right now who is just, she is very assertive and very effective in the environment that she works in. And just watching her and how she acts is one of the greatest ways that I can learn. Having her sit down and say this is how I work in this situation ... they show you how they are able to do it. That's the best way that they do it. (Joan Irene, Nursing, 1979, pp.8-9).

... What do you think Alverno is trying to do for its students by having this kind of a program rather than another kind?

Trying to get them ready or prepared for what they're going to run into when they are out and in their career ... because you have to solve problems, you have to analyze it, especially in Nursing, you have to be able to analyze problems. You have to know your values so you won't incorporate other people's value, or it will reflect your own values ... it strengthens you so that you know yourself and you know how to deal with situations which come up. That's why it's performing, so then if you get used to doing it, then if something occurs when you're out there, you can deal with it. It won't be like a shock or something that would throw you off ... I think they get you ready. If you run into something out there, you won't be like surprised or unfamiliar with it. I think they're trying to get you prepared for anything you may encounter ... (Beatrice, Nursing, 1979, p.8).

I think the goals are of the program ... From a Nursing perspective ... to be an effective nurse you have to be able to integrate the things that the competences bring out, into your nursing career, such as Social Interaction, Communication, those kind of things you do everyday in dealing with your patients. The ability to analyze and problem-solve. All those things are necessary to be effective ... if you are ... going into administration ... if you want to be a professional type person in which you are able to deal well in situations and feel comfortable dealing with different situations and adapt to different situations, ... you have to be in touch with where you are in terms of the things that the competences test for; in terms of your analysis ability, in terms of your ability to stand up on your feet and give a speech, in terms of being up on current events. All those things are important in a well-rounded person. (Leanne, Nursing, 1979, pp.4-5).

Note in this text the typical listing of competences, and the way that effectiveness and wellroundedness are defined as a conjunction of terms. The student speaks of integrating, a term which might suggest a more global use of the competences except that she is not speaking of integrating competences, but of integrating them into her professional performance. Her later discussion of professional performance indicates a conjunctive relationship among skills and areas of knowledge. The following excerpt similarly mentions "flexibility" in using the competences, and then gives the term a meaning that limits it to

responsive as contrasted to using an individual framework. In the end she defines competence again as a conjunction of competences.

When you talk about the promise of being a competent person, what does that mean to you? How would you define a competent person or what competence is?

I think ... one thing I would include in a general definition of competence is flexibility ... some one who is competent in, let's say problem solving, is flexible enough, you know, you may have a game plan ... I do this to solve this problem and maybe half way through you discover it's not working, and at that point you have to be flexible enough to give up the rest of your game plan and say, okay I'm going to start over ... you're flexible in that sense. Competence I would say is specific to each of the competences outlined. Generally I think some one who is competent in general has some of the qualities of each of the competences, like they can interact and they can communicate and they can problem-solve and analyze the situation in, you know, various situations. I guess I think the Alverno learning process sums up competence very well. (Barbara Sue, Education, 1979, pp.20-21).

Some students more closely approximate talk about discretionary performance, or performing in relation to a context. In the following excerpt a student talks about being creative and thinking of new ways of doing things.

Why would they have this kind of program as opposed to another kind?

They're trying to get you ... to take what you've learned and be able not to just know it but to really do it, to be able to apply it to a lot of different situations. That's the big thrust around here is to be able to take what you've learned and apply it and be creative and think of new ways of doing things ... the emphasis is on taking what you know and applying it in a different situation that you'll encounter, lots of them in life you know ... (Eryka, Music Education, 1979, pp.7-8).

A similar idea is expressed in a preceding excerpt where a Nursing student speaks of how exposure to Arts and Humanities helps one to be creative, so that such exposure might help her, as a nurse, to think of ways to occupy hospitalized children. Another nursing student talks about the ability to make effective decisions in her professional role.

... I have certain goals of how I want to be a nurse ... I want to be able to make the right decisions in situations, a decision that will be most effective for the patient's well-being. I want to be able to work intelligently on a unit. That involves a lot of things, like I want to be a good counselor, I want to be a good implementer, I want to be a good interactor with the team members ... (Jennifer, Nursing, 1979, p.23).

Accounts such as these are problematic because while they hint at an expectation that education will aid these students in discretionary performance, they do not explain how competences are related to this kind of performing: as skills that can be applied, as rules for behavior, as processes for making decisions, as categories of awareness? Any of these might be a basis for understanding competences as contributing to knowledge of what-to-do. It is difficult to interpret these student comments as implying that competences are understood as an integrated symbolic framework for organizing experience, or in other words, a philosophy of action. Indeed, the last excerpt occurs in the context of Jennifer's rejection of the "cultural paper" (Valuing competence) as something directly relevant to what nurses really need to know; she is here justifying her belief that "nursing" learning should have priority. Thus, her discussion of discretionary performing might not be tied to the competences at all, except that she seems to associate working intelligently on the unit with skills that are taught through competences, such as social interaction skills.

The evidence is that the meaning students assign the competences with reference to professional roles is probably not constructed upon understandings 1) of the competences as an integrated symbolic system for organizing experience, judgment and action, and 2) of discretionary performance in professional contexts. The competences are spoken of rather as compartmentalized processes which are appropriate for transfer to performance of certain aspects of professional role in the examples students relate. There is some awareness of a interlocking of competences where students learn integrating competences at the level of specific processes. In short, students' understanding of competences appears to be as processes. The next task at hand is to try to describe more of what students mean when they say that competences apply to work situations,

and what they say of their experiences in actually applying them.

If we set aside the question of professional relevance for a moment, and regard the testimonials of students experiencing competences as meaningful and useful, a pattern emerges. Students are talking very predominantly about four of the eight competences: Communications, Social Interaction, Valuing and Problem-Solving. A fifth, Analysis, is mentioned in "analyzing situations" or "analyzing problems" but is not as clearly defined with reference to how students have experienced its usefulness in real life events. The following excerpts are representative of what students say of their first hand experiences applying competences outside the classroom.

What competences do you value most?

I'm very glad they made us get as many communication assessments that we've had. The writing, the speaking, speaking I really value the most because I was always petrified to get up and speak in front of people ... I can see where that will be useful as a nurse ... it's being able to speak and communicate with others, it's an asset you can't do without... (Julie Lynn, Nursing, 1979, p.25).

So you'd say communications?

Communications was really one of the better competences we've had ... the Valuing competence I really enjoyed because it gave me a chance to look at, say if I had a problem, Problem-Solving and Valuing together are really like that ... a model for helping you using your values to decide what you're going to do. So like if I had a choice between staying home and studying or going out and doing something I could decide, using my values. So that I liked a lot. I've learned a lot about myself through the Valuing projects we've had to do. Like what we value and how that affects how we interact with people. (Julie Lynn, Nursing, 1979, p.25)

Does what you are learning at school affect your job or other work experience?

Oh definitely. Right now I'm in field experience for a semester and just everything that I've learned, especially two areas - education-wise everything I've learned about children I can apply while I'm at the job as well as learning to communicate effectively, be a problem solver in the classroom, socially interact with the children ... I can apply to the classroom. (NoREEN, Education, 1979, p.21).

There is one thing that really stands out ... the system of these eight areas of competence. I find myself applying this to everyday life ... I've learned how to analyze things, I've learned how to problem solve and I can apply it to everyday experiences and think back, hey, there's a process to do this ... (Noreen, Education, 1979, p.21).

I live in the dorm so I think a lot of the things that are taught at Alverno are carried over to there ... the students I know at the dorm, like we learn to problem solve, to analyze problems and how to interact with each other. And I think those things carry over in that I can interact better with students, at a higher level ... they're better able to express themselves and don't feel as intimidated ... they are more assertive in terms of what they want and they can back up what they say than some of my other friends who go to other universities. 1237, p. 1 (Leanne, Nursing, 1979, p. 1).

Are there any ways in which you, as a person, are different as a result of your experience here?

I am able to communicate what I think better, to act in a group more effectively ... and have a theoretical base in which to do that and do it more effectively. I'm able ... if I have a problem, to look at it systematically and take it apart and be able to solve it instead of going, oh-my-gosh, I can't handle this problem. I am more aware of my values than I was and what is important to me and I am also aware of other people's values and I am more careful in terms of not imposing my values on them ... I think those are the main things. (Leanne, Nursing, 1979, p.17).

Does what you're learning in school affect your performance or behavior on the job, clinical experiences ... or anything like that? Is it an immediate value to you when you're working?

Definitely ... Problem solving you are using that constantly on the unit. You have a patient that is turning blue or something, you have to totally evaluate that situation ... and make a decision on what you are going to do. The way I have come to my decisions in the process I go through to make that decision and it's all done because the CLU system plus my own personal experience. I think the majority of it really does have to do with the CLU's and the way I have learned to process information and act on it through school. (Jennifer, Nursing, 1979, p.22).

Does your work experience have any effect on the way you approach learning in school?

I think it does as far as what I expect to learn or ... prioritize as far as learning. When I am out in the unit, again that's a place where the physiology and the intervention ... is really big ... I guess in a way it also reinforces what I have learned as far as our process, again, of making decisions and interacting. So it reinforces me to keep working on that. (Jennifer, Nursing, 1979, pp.22-23).

... the things I learn here, ... sometimes I use them in evaluating people or ... in dealing with people if they have a problem ... Like they teach you here to listen, don't just jump in and give your opinion. Listen to the person and see what they're really saying, get out their feelings and get to understand them better and try to get them to answer their own question ... don't answer for them ... I try to do that. When I do come across somebody who wants my help I try to do that, get them to answer their own questions. And ... like I said I use the communication skills when I'm talking to people ... like when I went to the hospital I was applying those communication skills ... 'cause they watch you to see what kind of abilities you have and how you conduct yourself. So I was using the abilities I learned here there and I use it at home ... just talking with my family ... I just use it, in everyday life. (Beatrice, Nursing, 1979, pp.21-22).

... When I first came, I hated it ... I said well how come we have to have this extra work which we don't need ... I figured what do you need with this Communication, Social Interaction, Values, just what is this? ... But now I can understand it ... I like it better. It helps me more 'cause now I'm able to communicate better with people and understand them better, just by this program here of the CLUs and things because it helps you in understanding people and understanding yourself and how to do things. (Beatrice, Nursing, 1979, pp.11-12).

You had mentioned your friends leaving, the high tuition also, were there any other reasons you had for leaving?

No, the other reasons kept me here, the CLU system, the faculty, and the school itself and the atmosphere, the environment here. (Pamela Lee, Library Science, 1979, p.5).

Could you clarify for me why you like CLU system?

Because I feel it is bettering me ... with the CLU system the CLUs are based on improving me. Especially the Communications, I feel has really helped me get up in front of people and talk -- speeches, I like that, to have learned to do that ... (Pamela Lee, Library Science, 1979, p.5).

Do you see any kind of relationship between your education and your personal life?

Yes. Problem solving. I can solve problems in my own life. I learned how to interact with people and so I can do that. Assertiveness. I am learning those skills through courses and the CLUs, and that sure helped me in my personal life. I'm learning to look at myself, my personal life, and see what I want and if I'm really working at that. (Pamela Lee, Library Science, 1979, p.18).

Which competences do you value most?

Communications, speaking, Problem-Solving. And Contemporary World ... I would like to do more in that area ... I would like to be more informed. (Pamela Lee, Library Science, 1979, p.22).

Why these particular competences?

They have been most beneficial to me, expanding my relationships to other people; Problem Solving, you are going to have problems in life and this helps the way, to teach me now to work with these problems; Communications, I wasn't ready to go around and talk with people. And Contemporary World just to improve myself, become more aware of what is happening ... (Pamela Lee, Library Science, 1979, p.22).

In the preceding excerpts, students have testified to their individual experiences of the usefulness of the competences, sometimes with reference to work settings (e.g. OCEL's, clinical experience, field experience in teaching, a job interview), and sometimes with reference to personal life episodes. A point of interest is that the reported experiences of meaning and usefulness are of identical kinds for both contexts. In relation to the competences Communications and Social Interaction, students report feelings of increased mastery, control, awareness and effectiveness of their social or interpersonal skills. In relation to Problem-Solving and Valuing by implication, students experience greater control over making decisions and greater security or confidence in their ability to choose well. The comparisons refer mostly to students' earlier experiences of their own performing in these areas, and occasionally a student makes a comparison with others who have not had education in the competences. The Valuing competence appears to be connected with both social skills and control in decision making, as well as with feelings of increased self-awareness and self-definition.

It seems that according to the way students structure their use of the competences outside of classroom settings, there are four operative competences (with a possible fifth, Analysis) and these converge to create experiences

of increased mastery, control and certainty in three areas that students consider important. The heaviest emphasis is in the area of social or interpersonal skills. Students report a kind of desensitization to expressing themselves to others, an overcoming of shyness or reticence, as well as feelings of increased understanding of other persons, and of interpersonal episodes, and an increased confidence in knowing how to behave in interpersonal situations of various kinds. The evidence suggests that for these students, the four competences operate to reduce uncertainty in areas of experience that are immediate and often problematic for adolescents in transition to young adulthood; interpersonal relations, identity and personal choice. With the aid of the competence frameworks, the self and other persons are better defined, as are the actions and interactions of the self and others. Problems and alternatives likewise are susceptible to methods for reduction of ambiguity and systematic processes exist for ordering elements of choice. We readily see applications of such frameworks to projected professional performance. The competences support student's perceptions of being generally more in control and more effective in common everyday events of the kind that would typify practically any work environment, as well as many other social settings encountered in one's personal life.

The patterns that have been discussed raise two questions which will not be possible to answer on the basis of interview data. Much was said earlier of the justificatory rationale of career relevance that students give the competences. The manner in which students expect the competence curriculum to help them in their professional roles has just been shown. But in doing so, certain possible justifications have been revealed that are not specifically related to professions. Could it be the case that the reduction of uncertainty in important areas of personal functioning is in fact

as significant, or more so, to students than specific career relevance, in their private justifications of the competence-based curriculum? The fact that most students come from working class backgrounds, and a strong emphasis on "professionalism" at Alverno may be responsible in part for the tendency of students to relate most kinds of learning ultimately to professional performance. It may be that students learn to justify competences according to career relevance initially because faculty first establish relevance of the curriculum in terms that fit students' beginning expectations of college. On the other hand, students may soon become convinced of the usefulness of the competences chiefly through immediate everyday experiences in which the competences seem helpful in reducing uncertainty and increasing feelings of personal control in common life events.

Second, it appears that students actually apprehend four, or at most five, competences. Occasionally a student will express a preference for Contemporary World. Art students are more involved with Aesthetic Response and Music students are concerned with a ninth competence, Performance. But by and large the five competences, Communications, Social Interaction, Valuing, Problem-Solving and Analysis, each receive far more attention than the others (Involvement in the Contemporary World, Individual Response to the Environment, Aesthetic Response). When students discuss learning, and when they discuss actual rather than potential use, Analysis is less likely to be mentioned. Some students believe that Contemporary World and Environment are not as thoroughly taught as the others. This, of course, could be deliberate or indeliberate, or it could be a matter of the students' uptake and not of curricular offering.

It has been proposed that the competence system can be construed as an integrated symbolic system for ordering experience, judgment and action; a kind of theory of action or practical structuring of learning. This is an essentially accurate characterization of the way faculty intend competences to be used, and particularly the way that competences become integrated for students at the upper levels. The present analysis is made on the basis of student interviews, rather than the viewpoint of faculty. A full investigation of the meaning of competence based learning at Alverno would of course need to more explicitly compare formulations of the faculty's own perspectives on the rationale for the curriculum. While some formulations exist, the learning process is constantly undergoing change in theory and practice.

On the basis of the evidence at hand, the most likely construction appears to be that Communications, Analysis, Problem-Solving, Valuing and Social Interaction, are indeed the central core of the structure for students, and that these represent espoused principles of judgment and action around which the system is centered. These competences all pertain to judgment and action at the level of the immediate situation, although Analysis is perhaps set apart as a tool for identifying situational elements. Perhaps it is this relationship that accounts for the reported association of Analysis with the four competences but general absence of evidence that verifies its use.

For students, the other three competences, Contemporary World, Environment and Aesthetic Response are somewhat subsidiary in function. These competences are more external to the day to day experience of students and belong to the wider and more distal rings of context in which action can be regarded. These competences are therefore less accessible for more

concrete process applications than the competences concerned with elements of the immediate situation, which may in turn make them less accessible to students for everyday use.

CONCLUSIONS

This report describes how Alverno students justify learning. On the basis of interview texts of 13 traditional aged Alverno students from the end of their third year in college, a structuring of learning is revealed that is centered in how to perform and oriented toward professional relevance. This structure is characterized by a justificatory assimilation of all learning to 1) acting socially and 2) professional role performance. Both of these characteristics appear to be consistent with institutional philosophy. Alverno College places a strong and very explicit emphasis on preparing its students for professional roles. The competence system itself represents a performance-based structuring of learning, or a theory of action expected to enable transfer of learning to personal and professional roles and contexts.

Students' and educators' understanding of learning, while converging in a mutual justificatory language, may be founded upon divergent understandings of the competences that reflect the students' age and experience relative to that of the faculty. Alverno educators recognize the philosophical character of the competence system, that the system is an integrated symbolic network for ordering social experience and action in relation to personal and professional roles. Students at the end of their third year in college understand and experience the competences chiefly as sets of categories, rules, skills and processes which function to reduce uncertainty (descriptive, ascriptive, and prescriptive) about one's own actions and the actions of others at the level of everyday situations. This yields personal development outcomes such as increased confidence, self-concept and self definition in both personal and professional roles.

DISCUSSION

Liberal learning consists in part of competences derived from and integral to the academic and professional disciplines. Alverno faculty have developed a learning and assessment process to assist students to learn to demonstrate their abilities and transfer learning across multiple situations during college. The learning process rests heavily on experiential learning. Students are required to experience and reflect on performance, and to think about and try out ways of performing in relation to personal and professional roles (Alverno College Faculty, 1976; 1979). Competences are regarded as holistic characteristics of the person that transfer across situations, contexts and roles. How do students understand this kind of learning in relation to their own goals, or in other words, how do they themselves justify their education?

Two outstanding patterns appear in the ways Alverno students justify learning. One is a strong intellectual focus on education as preparation for work, for a career. Second, there is a strong emphasis on learning how to perform. While there are indications that students additionally view learning as contributing to well-roundedness and as broadening one's mind, students characteristically assimilate all forms of learning to one or both of the two major justificatory constructions. Learning can be related to enhanced intellectual and social performance in everyday personal situations. But learning how to perform is often, in turn, assimilated to professional performance. This link between learning and performing allows for the transfer of learning to multiple situations and contexts, and establishes the student's confidence in her abilities to perform in professional and personal roles after college. Enhanced self-confidence seems to be a major link between liberal learning and enhanced self-concept and personal identity.

We do not claim that Alverno's traditional-aged students articulate these perspectives upon entry. They do enter college with a focus on preparation for careers. But the student constructions that ultimately justify learning as relevant to career or professional roles seem to be an outcome of the dialectic between students and the learning process. Alverno students understand the value of education as preparation for work, a concern which has become more and more dominant among students in college. While students in the 60's and 70's pressed for relevance of learning to social justice and social action, students in the 80's are pressing for relevance of learning to careering after college. Alverno students who, for the most part, do not come from college educated families begin by valuing college education as preparation for a particular kind of work and the quality of life associated with college education. The educational process builds on this value, assisting students to a more sophisticated justification of liberal learning in relation to career or professional roles. They become aware of liberal learning as contributing to well-roundedness and the broadening of mind as well as intellectual and personal skills that function in a broad range of life situations. In this way students are assisted to see liberal learning not merely as technical education for one's profession, but as a way to become a professional person.

It is possible that the learning experiences associated with the demonstration of competence in a variety of disciplines and in multiple settings create the kind of cognitive conflict that challenges students to come to an understanding of learning as more than technical preparation for a career. Students soon find that they must complete courses and assignments that are not obviously career relevant and toward which they

might feel "I am not interested in that." The conflict created stimulates students to rationalize the contribution of such learning experiences to educational goals. Through this experience the student may come to understand that one intended outcome of learning is well-roundedness or the broadening of one's mind — issues of personal growth. For many students, this outcome acquires a positive value in itself. While students may fail to see the value or relationship of some aspects of liberal learning to their technical field, this experience is critical in challenging them to begin to infer future, more abstract and broader benefits of college, and to relate these outcomes to a concept of self and professional development. The concept of well-roundedness is assimilated to the student's conception of professionalism and to becoming a professional person.

Perhaps the first step in assimilating "well-roundedness" to one's concept of self and "becoming a professional" is in beginning to understand the value of college for personal growth. That this may in fact be the case is suggested by student descriptions of the ways they use learning in everyday personal experience, and by their perceptions of their own growth and change as a result of being in college. Such immediate benefits probably reinforce the ability to infer ways in which learning will later contribute to professional effectiveness and professional identity. The discovery that one can use learning to help solve the everyday problems of transition to early adulthood may give the student confidence in the meaningfulness of the learning process, and become a powerful motivator for staying in college.

We believe that the assimilation of well-roundedness and personal growth to the concept of "becoming a professional" in turn contributes

inferential one? How do they assist the student to make relationships to her own goals? Students indicate that faculty give examples for how learning can be applied. Clearly the linking of learning with how-to-perform is an aspect of the student perspective that assists students to justify liberal learning. This link may account for the student's persistence in learning that does not seem immediately career relevant. The student's extensive involvement with demonstrating competencies in class and in the workplace seem to lead to the conclusion that much of liberal learning is to assist and prepare for real education. The justification of learning becomes related to the competencies and the application of learning are ultimately assimilated to career concepts and professional performance. In this way institutional conceptions of liberal learning are drawn into the student's focus on education for work and effective professional performance.

An important question raised by the methodology of this report is the extent to which students actually understand the underlying rationale for liberal learning at Alverno. Faculty do not expect that students will be able to conceptualize the learning process with the sophistication of the researchers themselves. As developmental educators, faculty recognize that students must develop their understanding. Development of the ability to apply and demonstrate learning in multiple contexts of personal and professional role performance is a lifelong process that begins in college.

Faculty have since created a description of Alverno for students (Gibson and Owe, 1990), and have initiated a proposal for a national network of college teachers to explore critical thinking.

We are interested, however, in how such development begins. We gain insight from examining how students understand relevance. This begins with how they understand the learning process, how they understand competence and finally how they understand the relevance of competence to professional and personal roles. Earlier we said that a student's ability to understand how certain learning experiences are relevant to professional roles was tied to her ability to infer relationships and develop abstract concepts of professional and personal roles. This is a language-mediated process -- the *learning process* inferred by the student, a language skill through which the appropriate inferences might be made. We have many examples in interview texts of students using the language of learning especially in reference to competence. We do not, of course, hold that the use of language alone is an adequate criterion for understanding. We suggest, however, that the use of the appropriate language is a first step in comprehending the nature of learning, and assists the student in making the inferences that create learning here and now, to her ultimate educational goals and to her competence as she seeks to become a professional. The first stage of any socialization process is learning the language and understanding shared meaning. The accommodation of one's values and beliefs to a form is predicated on learning language. When students use the language of learning and competence fully, we have an indication that a certain phase of understanding is established.

This report has been concerned with normative patterns rather than developmental ones. Certain developmental implications, however, seem pertinent to the student's ability to understand the learning

process and infer meaning in relation to professional preparation. We would like to point out three ways students seem to understand learning: learning is perceived as content, as process, and as learning how to perform. That is to say, students understand learning as the content of their discipline, as the process that includes experiencing, reflecting and testing out, and as coming to the ability to perform. While students seem to vary in the extent to which they focus on the content and process aspects of learning, they are generally strongly aware of learning how to perform. This concept of learning seems to be quite important for making the connection between learning to career goals. The principles of career relevance and usefulness of learning combine to make learning meaningful, regardless of the extent to which learning is perceived as content, process or both.

The idea of learning how to perform is based on the concept of competence and the demonstration of competence in various performance situations. Students are assessed in multiple ways for their ability to perform tasks that require apply knowledge by performing within the context of a situation or given competence. Consequently, competence-based learning seems critical for the students' justification of their learning. The understanding of competence, then, is a central aspect of what makes learning meaningful in relation to the students' educational goals.

In the main body of the report, we describe student constructions of competence, understanding competence as categories, rules, skills and procedures, understanding competence as theory or action, and understanding competence as the way for performing in relation to competence.

We regard this series as developmental. It appears that students begin to understand competence as categories, rules, skills and processes.

At this point students may perceive the competences as "extra learning" because they tend to dichotomize learning into "content related to my career" and "competences which are extra here at Alverno." Seeing competences initially as steps or rules for performance may help students later to infer the relations by which competences become processes for applying knowledge to performance.

Faculty have defined competence as a unit that must be inferred from performance. Competences are constructs that are not directly observable. It is quite plausible that just as faculty infer a student's abilities from her performance, so too, the student comes to understand the abstract construct of competence by experiencing and observing her own performance. It seems that students need a great deal of experience demonstrating competence -- including applying the competences to encounters within their personal and work lives -- to begin to realize the integrated nature of the competences and to see them as their own.

But as we consider the extent to which students can realize this experience that provides a field for realizing the competences in this way, by and large the field is limited to peer and family encounters and the work experiences provided by part-time jobs and experiential learning activities (off campus experiential learning, clinical experience and student teaching), and assessment within the program. We do see, however, that some students begin to glimpse the integrated nature of the competences and to see that these provide a theory of action.

In the early stages, the basic view of the competences interprets them as ways of looking at things, ways of understanding things, ways to be aware of what is important. While some students apprehend the interrelationships of the competences, the more likely perception is that competences guide action in specific personal and professional situations.

However, we note that the less sophisticated understandings of the competences may be the more likely understandings of learning how to perform. As we said earlier, a major justification for learning is based on the students' experience of immediate benefits of applying the competences across multiple situations. Stated another way, we might say that being able to apply one's learning through performance in immediate personal and professional situations during college opens the students' eyes to the kinds of benefits to be derived from liberal learning.

Learning to develop becomes the seed for development of more sophisticated understandings of learning as a process. While traditional aged students are unlikely to conceptualize competences as an integrated theory of action in relation to context, we are encouraged to believe that the seed for such constructions will continue to develop out of the students' experiences in using their abilities in personal and professional roles after college where complex experiences and the need to perform in complex contexts will arise. Because students report 'extensive' use of their learned abilities during college, we are encouraged to believe that further growth in discretionary use will occur after college. With regard to development both in and after college, an

important construct is "learning to learn," a term we have begun to use with reference to how a student translates learning as process and performance into performance that is appropriate to a particular context. Indeed our alumnae interviews two years after graduation give evidence of such a process occurring repeatedly in the work setting.

In summary, competence based learning seems to put the mystique of liberal education within the grasp of persons whose main concern is preparation for a career. College, of course, has purposes of its own, to open and broaden the mind, to develop critical thinking and the ability to abstract, infer, make relationships and so on. We have seen how such educational goals can be assimilated to career goals through a change in the concept of work as a set of technical skills toward the concept of professional role and professional identity which includes the demonstration of more holistic competence. Clearly, the degree to which such outcomes are realized by the traditional-aged student varies, and it is now our task to look at individual differences through our longitudinal data. We think it important to examine the pattern of change through the college years.

While this report is concerned with normative rather than developmental patterns, the data hints at the possibility of developmental trends. Because we are so acutely aware of the dialectic between the individual and her educational experience, we hesitate to identify causal variables for the patterns we have found. We do suggest, however that the critical point is that learning becomes linked to action. This is imbedded in the concept of competence. For women in particular, socialization toward action in the context of a profession is critical if they are to achieve what Alverno women seem to want -- better opportunities in the world of work. Studies of current collegiate student attitudes

show increased concern with practical benefits of college. Higher education is in turn concerned that traditional liberal arts values for learning will be lost. This study shows that those values of learning and personal growth can be developed along with values for professionalism for students primarily centered on the relevance of education to work.

In conclusion, student perspectives as set forth in this report, validate liberal learning as defined by the Alverno faculty. While there are differences in the extent to which individual students understand learning and the concept of competence, students as a whole justify liberal learning as relevant to well-roundedness and professional performance. The probable means of connecting liberal learning with professional performance is the linkage of learning with action and the experience of benefits from demonstrating competence while in college.

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ALVERNO COLLEGE STUDENT
PERSPECTIVES INTERVIEW

Marcia Mentkowski Nancy Much

Office of Research & Evaluation
ALVERNO COLLEGE

Funded by a grant from the National Institute of Education:
Careering After College: Establishing the Validity of Abilities
Learned in College for Later Success
(NIE G-77-0058)

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STUDENT PERSPECTIVES INTERVIEW

INTRODUCTION

As a beginning, I'd like to give you an understanding of the kinds of things we'll be talking about, what you can expect and what I would like to know about your college experience.

First, I want it to be clear to you that what you say here will be kept confidential. No one but myself and Dr. Mentkowski will listen to this tape. When the tape is typed up, we remove any features, such as names and places, that could identify the speaker or anyone else involved. Even then, no one else is allowed to read these except for the research staff who are not Alverno students or faculty. Sometimes parts of student interviews are used as examples in reports or presentations, but when this is done we make sure that nothing is included that could possibly identify the student.

I am going to be asking you some questions about your educational experience at Alverno. I haven't been working here very long and it seems to me that there's a great deal to be understood about what they call the Alverno Learning Process. You may have to make some things clear for me as we talk. But what I am really interested in knowing is how you see things, not how Alverno sees things or how other students see them. I'm going to want to know what your educational experience has meant to you as an individual, how it has affected you and what you think about different aspects of your college experience. And I'll ask you about this in a variety of ways.

This means that you may have to really stop and think about some questions that you may never have thought about before. I want you and me to try to identify the things that stand out as most important to you and to try to understand why these things have been important. So while we're talking I'll give you time to stop and think whenever you need to. And occasionally I'll ask you to stop and focus on a particular point. I'd like you to let me know anytime a question isn't clear to you, and I'll let you know whenever I'm not sure I've understood what you said. The main thing that I want to get from our talk is a real understanding of your individual point of view.

At the end of the interview, I'll give you an opportunity to ask me anything that you'd like to know about this research or anything that comes to mind. For now, do you have any questions about what I've been saying? . . .

I'd like to start out by asking you how you would describe Alverno generally.

1. How would you describe Alverno generally?
[probe: What is this school like? What's it like to go to school here?]
- 2a. What would you want to communicate to someone who was thinking about coming to Alverno as a new student?
[probe: What would it be important for them to know--what should they consider to make that decision?]
- b. What would you want to communicate to someone who was thinking about joining the faculty?
- c. What do you think the ideal Alverno student should be like in order to get the most out of her learning experience?
[probe: What does it take to really do well at and benefit from Alverno?]

are students here really like that?

If yes: Why are they like that; do you think that that's the kind of person who comes here, or do you think they learn to be like that while they're here?

If latter: How does that happen?

If no or can't say: Do you think students get to be more like the ideal after they've been here awhile?

If yes: How does that happen?

What do you think the ideal Alverno faculty member should be like?

Are there any Alverno values?

If yes: In what ways do the Alverno values help you do your job?

Have you known/told anyone who has dropped out or transferred because she thought Alverno wasn't right for her?

If yes: What reasons did she give for leaving?

Why do you think she left?

- b. Have you yourself ever thought about dropping out or transferring?

If yes: When?

What reasons did you feel you had for leaving?

What reasons did you feel you had for staying?

5. Do you find that your educational experience at Alverno is any different from high school or from other colleges that you know about? (How)
- 6a. How would you describe the rationale for the Alverno learning process; what do you think the educational goals of this kind of program are?
[probe: Why would Alverno have this kind of program instead of some other kind? What do you think Alverno is trying to do for its students?]
From the standpoint of Alverno, what do you think the ideal Alverno graduate would be like?
How do they want you to turn out?
Do you think there are any kinds of things that Alverno encourages its students to adopt? (Specify)
How do they encourage them?
How has your impression of Alverno changed since you first came here? does it seem any different to you now than it did at the beginning?
[probe: I mean, when you first came here, you probably had a first impression of Alverno and what it was like to be going to school here-- has that picture changed now that you've been here for awhile?
NOTE--be sure student understands that you mean to compare her present impression with her impression during her first weeks or months, not her impression before arrival.]
6. What about Alverno has influenced you most (if it has), is there anything that stands out in your mind that has really made an impression on you and influenced you? (Describe)
- What do you think are the most important things of your experience here that have a good deal for your learning?
[probe: Is there anything about Alverno that you can point to and say, well, I've learned because of that?]
10. Have you changed in the way you approach learning since you've been here? (How)
If yes: What do you think made you change?
11. Since you've gotten to know more and more about the Alverno program, how have your attitudes toward the program changed?
Why do you think that has happened?
Have your own changes in attitude affected your learning? (How)

12a. What kinds of challenges has being at Alverno created for you? (More General)

b. Have there been any times since you've been here when you've really felt unsettled about something? Did anyone or anything make you feel uncomfortable?

Was it resolved?

If yes: How did you resolve that?

Was there anything about Alverno itself that helped you resolve it?

c. What, about ~~right~~ now, is there anything that you're feeling unsettled about right now? (What?)

If yes: How do you think that might become resolved?

Is Alverno helping you resolve it in any way? (How)

13a. Do you think that you have created any challenges for Alverno? (Explain)

If yes: How did Alverno respond to your challenges?

Do you feel, then, that you've influenced Alverno at all--even in a small way?

b. Do students have rights as learners here at Alverno?

If yes: What are these rights?

Do students influence the learning process?

If yes: How does this happen?

If no: Why not?

14a. Are there any ways in which you have ever felt that the institution was not fair with you?

[probe: I mean when you really thought Alverno wasn't living up to its responsibility to you?]

b. Has Alverno lived up to its promises?

c. Does Alverno do enough to make clear to you the things that you need to know in order to make important decisions about your program and other educational choices?

In what ways have you found Alverno's efforts to do this adequate or inadequate?

15. If you could have your way, how would you want to change Alverno to make a better program or better learning atmosphere?
 [note: If necessary, direct student away from utopian fantasies and financially contingent changes like "there shouldn't be any tuition" or "we should have a student union like UWM's"--In other words, limit her to changes she believes are feasible, e.g. you could say: Do think Alverno could really do that? Well, what do you think they could do to make it better?]

16a. Now I'd like to talk a little bit about what being here means to you with respect to your own personal goals and values. And I'd like to begin by asking you why you decided to go to college?

b. Why did you decide on Alverno; what kinds of things influences your decision?

17a. What major goals did you have when you entered Alverno?

Have any of those goals been achieved?

If yes: What did Alverno have to do with that?

If no or not yet: Are you any closer to achieving any of them?

If yes: What did Alverno have to do with that?

If no: What do you think it would take to bring you closer?

b. Have your goals changed at all since you came here--for example, do you have any goals you didn't have before, or do some goals seem less worthwhile now? (How?)

If yes: Did your experiences at Alverno have anything to do with that?

c. What is the value of Alverno with respect to your present personal and career goals; in other words, how does coming here "make sense" as a contribution to your own goals?

18. Do you see any kind of relationship between your education and your personal life; do things carry over from one part of your life to the other or do these parts of your life affect each other in any way or are they more or less separate? (Describe)
 [If student mentions only one direction of influence ask for the other, e.g. "and do you feel your personal life affects your learning at all?"]

If separate: Can you describe that for me; what kinds of things are you concerned with at school and what other kinds of things are you concerned with outside of school?

19a. Does what you're learning at school affect the way that you approach your job or other work experience like OCEL or clinical work or field experience; is it of any immediate value to you at work?

b. Does your work experience have any effect on the way you approach learning at school?

20. How would you describe yourself at this point in your life?

21a. Are there any ways in which you, as a person, are different than you were before, as a result of your experience at Alverno? (Describe)

Do other people ever tell you that you've changed since you've been here or do they respond to you differently than they did before?

If appropriate: What do you think caused the changes you describe?

b. Again, if you could have your way, what kinds of changes in yourself would you like to result from your educational or career experience?

Do you see this kind of change as possible or probable?

What do you think it would take to make this kind of change?

22. Do you feel competent?

Which competencies do you value most?

Why these?

23a. What kinds of questions are you asking yourself right now?

b. What challenges do you see for yourself now or in the near future?

24. Of all the things that you can recall, what really comes home to you about your past year?

NOTE:

These questions are printed at the bottom of each page of the interview so that the interviewer has them before her at all times.

Through probing, it is hoped that the student's most sophisticated thinking about a question will surface. It is important to realize that a student who is highly sophisticated will say many of the things that less sophisticated students will.

It is therefore very important to probe so as to elicit more than common responses where possible.

HOW?

WHY?

WHY IS THAT IMPORTANT?

HOW DOES THAT HAPPEN?

WHAT DO YOU MEAN BY THAT?

CAN YOU DESCRIBE THAT A BIT MORE FOR ME?

YOU MENTIONED _____. CAN YOU CLARIFY THAT A BIT FOR ME?

HOW IS THAT IMPORTANT FOR _____?

JUST OFF THE TOP OF YOUR HEAD...

COULD YOU FOCUS ON _____ FOR ME?

I'D LIKE TO FOCUS ON _____ FOR JUST A MOMENT

HOW DO YOU FEEL ABOUT THAT?

CAN I BRING YOU BACK TO _____?

I'D LIKE TO BRING YOU BACK TO _____.

WOULD YOU BE WILLING TO SHARE THAT WITH ME?

COULD YOU GIVE ME AN EXAMPLE?

ANYTHING ELSE?

WHAT DO (DID) YOU THINK ABOUT THAT?

SOME QUESTIONS USED IN THE DESIGN OF THE STUDENT PERSPECTIVES INTERVIEW

1. How do students characterize Alverno?
2. Why did the student come to college and why did she choose Alverno?
3. What kinds of satisfactions does the student expect to obtain from participation in the educational system?
4. What kinds of immediate satisfactions does the student obtain from her participation in the educational system?
5. What educational values does the student express?
6. How does the student understand her role as a student?
7. How does the student understand the faculty role?
8. How does the student describe her learning?
9. How does the student understand and characterize competence-based learning?
10. How does the student perceive the rationale for the Alverno Learning Process?
11. How does the student perceive the institutional values?
12. What are the experiences within the educational environment that generate conflict for the student and what are the issues of conflict?
13. How does the student describe her personal and intellectual development?
14. How does the student describe her professional development?
15. What kinds of experiences does the student describe as influential to her development?
16. How does the student describe the relation of her education and her work experience?
17. How does the student understand the relation of her education to her career objectives?
18. How does the student describe the relation of her education to her personal life?
19. What are the student's goals and expectations after college?
20. What are the student's questions and concerns about the future?

21. How does the student define what has been fair and unfair treatment by the college with respect to her own experiences?
22. What rights does the student believe accompany her role as a student?
23. How does the student perceive her capacity to influence her learning environment?
24. What kinds of satisfactions does the student obtain from her participation in the educational system?
25. How does the student describe her development?
26. What kinds of experiences does the student describe as influential?
27. What new awarenesses or insights does the student attribute to her college experience?
28. How has the student related her education to her work experience?
29. How does the student describe the relation of her education to her personal life?
30. What are the student's goals and expectations after college?
31. What are the student's questions and concerns about the future?



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